Search completed: June 13, 2001, 14:14:30 Job time: 371 sec

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GenCore version 4.5

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OM protein - protein search, using sw model

Run on: June 13, 2001, 14:10:36 ; Search time 130.61 Seconds
(without allgaments)
4.209 Million cell undates/sec
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Title:
PcT-US01-05825A-2
Perfect score: 45
Sequence: 1 GRVCVQDG 8
Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Total number of hits satisfying chosen parameters: 19880

198801 seqs, 68722935 residues

Searched:

Minimum DB seq length: 0 Maximum DB seq length: 2000000000 Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database : PIR_67:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES Result Query

Description	zona occludens tox	zonula occludens t	exodeoxyribonuclea		aspartic proteinas		hypothetical prote		a	hypothetical prote	maf protein TC0628	N4-(beta-N-acetylg	nitrilase/Fhit pro	glutamate synthase				æ	ATP-stimulated glu	probable homeobox	hypothetical prote			Φ	w	protein-tyrosine-p	PrP 35 protein - m	DNA polymerase - h	conserved hypothet
ID	B82197	A43864	B81684	F71529	S41400	T01352	T23238	S74292	B82065	F71525	н81681	S69194	T43198	G82083	G65112	G83017	н82523	S74537	JN0606	T28912	G65072	C65022	A45984	A48833	GLHQ	JC2349	148721	T41940	C72010
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Length	399	399	516	516	322	475	196	145	185	196	196	340	440	471	472	477	464	208	524	583	644	629	949	745	825	979	966	1012	224
Match	93.3		80.0	80.0					73.3								73.3	73.3			٠	73.3		•	73.3	73.3		73.3	71.1
Score	42	42	36	36	35	35	34	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	32
No.	-	7	e	4	Ŋ	9	7	80	σ	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	56	27	28	29

vestitone reductas glutamate synthase	hypothetical prote T40 protein - frui	nypormetical proce glutamate synthase hypothetical prote	glutamate synthase myocyte-specific e	conserved hypothet hypothetical prote	•	hypothetical prote hypothetical prote	מפודוופ ס-מכפראורומ
S66262 JE0142	T05207 S42989	JC5184 JC5184 B70597	A46602 T49366	T42186 D71551	T43682 T14267	C65009 T36312 E53403	7
77	999	4 01 01	~ ~	00	77	777	1
326 413	419	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	481	1449	1628	142	9
71.1	71.1	71.1	71.1	71.1	71.1	0 0 0 0 0	
32	355	2 2 2	32	322	323	337	5
30 31	8 8 8	3 3 4 9 5 4	37	39	4 4 7	4 4 4 2 4 4	<u>}</u>

ALIGNMENTS

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RESULT
B82197
B82197
Zona occludens toxin VC1458 [imported] - Vibrio cholerae (group Ol strain N16961)
Zona occludens toxin VC1458 [imported] - Vibrio cholerae
C; Species: Vibrio cholerae
C; Accession: B82197
R; Heidelberg, J.F.; Elsen, J.A.; Nelson, W.C.; Clayton, R.A.; Gwinn, M.L.; Dodson, R.
C; Accession: J. J.; Venter, J.C.; Fraser, C.M.
Nature 406, 477-483, 2000
A; Title DNA Sequence of both chromosomes of the cholera pathogen Vibrio cholerae.
A; Reference number: A82035; MUID: 20406833
A; Accession: B82197
A; Reference number: A82035; MUID: 20406833
A; Accession: B82197
A; Molecule type: DNA
A; Residues: 1-399 cHEI>
A; Residues: 1-390 cHEI>
A; Residues: 1-399 cHEI>
A; Residues: 1-390 cHEIP
A; Residues: 1
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Best Local Similarity 87.3%; Fred: No. 1.1;
Matches 7; Conservative 1: Mismatches 0; Indels 0; Gaps 0;
Qy 1 GRVCVQDG 8
| 1:|||| |
Db 291 GRLCVQDG 298

RESULT 2
A43864
Cobal cocludens toxin - Vibrio cholerae
C; Species: A3864
R: Baudry, B.; Fasano, A.; Ketley, J.; Raper, J.B.
A; Reference number: A43864
A; Reference number: A43864
A; Reference number: A43864
A; Residues: 1-399 choly
A; Molecule type: DNA
A; Residues: 1-399 choly
A; Cross-references: GB-N83563; NID:g155315
A; Cross-references: GB-N83563; NID:g155315
A; Note: sequence extracted from NCBI backbone (NCBIN:77488, NCBIP:77491)

Ouery Match 93.3%; Score 42; DB 2; Length 399; Best Local Similarity 87.5%; Pred. No. 1.1;

à g

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A.Cross-references: EMBL:X77260
A.Cross-references: EMBL:X77260
C.Comment: The pair of saposin repeat homology domains tagged SAP1 and SAP2 represent
C.Superfamily: oryzasin; saposin repeat homology
C.Superfamily: oryzasin; saposin repeat homology #status atypical <SAP1>
F:99-144/Domain: saposin repeat homology #status atypical <SAP2>
F:755-203/Domain: saposin repeat homology #status atypical <SAP2>
F:73/Active site: Asp #status predicted
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Submitted to the EMBL Data Library, January 1995
A; Reference number: 219713
A; Reference number: 219713
A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Residues: 1-796
A; Cross-references: EMBL: 247811; PIDN: CAAB7788.1; GSPDB: GN00020; CESP: T05H10.7
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      hypothetical protein F6N15.2 - Arabidopsis thaliana Cispecies: Arabidopsis thaliana (mouse-ear cress) Cispecies: Arabidopsis thaliana (mouse-ear cress) Cispate: 12-Feb-1999 #sequence_revision 12-Feb-1999 #text_change 14-May-1999 (Accession: T01352 Right, E.; Edwards, J.; Pape, K. Ryan, E.; Edwards, J.; Pape, K. Submitted to the RMBL Data Library, May 1998 A; Description: The sequence of A. thaliana F6N15.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     hypothetical protein T05H10.7 - Caenorhabditis elegans
C;Species: Caenorhabditis elegans
C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 29-Oct-1999
C;Accession: T23238; T24560
C; Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 29-Aug-1997 C; Accession: S41400 R; Fujikura, Y.; Karssen, C.M. submitted to the EMBL Data Library, January 1994 A; Description: Cauliflower CDNA with sequence homology to gastric proteases. A; Reference number: S41400 A; Accession: S41400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 322;
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A; Experimental source: cultivar Columbia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 35; DB;
Pred. No. 21;
1; Mismatches
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A,Status: translated from GB/EMBL/DDBJ
A,Molecule type: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       77.88;
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Best Local Similarity 85.7%;
Matches 6; Conservative
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A; Residues: 1-322 <FUJ>
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208 RICVEDG 214
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316 GRVCVKD 322
                                                                                                                                                                                                                                  A;Status: preliminary
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A; Introns: 194/1
A; Note: F6N15.2
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A; Molecule type: DNA
A; Residues: 1-516 CTET>
A; Residues: 1-516
                                                                                                                                                                                                                                                                                        - Chlamydia muridarum (strain Nigg)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          probable exodoxyribonuclease vii - Chlamydia trachomatis (serotype D, strain UW3/Cx)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
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                                                                                                                                                                                                                                                                                        exodeoxyribonuclease, large chain TC0605 [imported] - Chlamydia muridarum (s
C;Species: Chlamydia muridarum, Chlamydia trachomatis MoPn
C;Date: 31-Mar-2000 #sequence_revision 31-Mar-2000 #text_change 18-Aug-2000
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21;
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N;Alternate names: aspartyl protease
C;Species: Brassica oleracea (wild cabbage)
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Pred. No. 21;
1; Mismatches
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                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 36;
Pred. No. 2
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;Gene: xseA
;Superfamily: exodeoxyribonuclease VII
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Gene: TC0605
C;Superfamily: exodeoxyribonuclease VII
                                   1;
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85.7%;
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Best Local Similarity 85.7%;
Matches 6; Conservative
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Best Local Similarity 85.7
Matches 6; Conservative
                                      Conservative
                                                                                                                             11:1111
291 GRLCVQDG 298
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                                      7;
                                         Matches
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Gaps

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Length 185 Indels

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hypothetical protein CT349 - Chlamydia trachomatis (serotype D, strain UW3/Cx) C; Species: Chlamydia trachomatis are chomatis are chlamydia trachomatis competed to the competence of the compet
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C;Species: Chlamydia muridarum, Chlamydia trachomatis MoPn
C;Species: Chlamydia muridarum, Chlamydia trachomatis MoPn
C;Date: 31-Mar-2000 #sequence_revision 31-Mar-2000 #text_change 19-May-2000
C;Accession: H81681
R;Read, T.D.; Brunham, R.C.; Shen, C.; Gill, S.R.; Heidelberg, J.F.; White, O.; Hicke
V.C.; Dodson, R.; Gwinn, M.; Nelson, W.; DeBoy, R.; Kolonay, J.; McClarty, G.; Salzbe
Nucleic Acids Res. 28, 1397-1406, 2000
A;Title: Genome sequences of Chlamydia trachomatis MoPn and Chlamydia pneumoniae AR39
A;Reference number: A81500; MUD:20150255
A;Accession: H81681
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-196 < TEF>
A;Cross-references: GB:AE002331; GB:AE002160; NID:g7190662; PIDN:AAF39457.1; PID:g719
A;Cross-references: GB:AE002331; GB:AE002160; NID:g7190662; PIDN:AAF39457.1; PID:g719
C;Genetics:
A;Genetics:
A;Genetics:
A;Genetics:
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A;Genetics:
A;Conetics:
A;Genetics:
A;Conetics:
A;Co
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32;
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                                                                                                                                                                73.3%; Score 33; DB 2;
85.7%; Pred. No. 31;
Live 0; Mismatches 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 33; DB 2; Pred. No. 32; 0; Mismatches
    A;Map position: 1
C;Superfamily: hypothetical protein HI1679
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75.0%;
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Best Local Similarity 75.04
Matches 6; Conservative
                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                Query Match
Best Local Similarity
Matches 6; Conserv
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A;Experimental source: serogroup 01; strain NI6961; biotype El Tor
C;Genetics:
A;Gene: VC2524
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C;Species: Vibrio cholerae
C;Date: 18-Aug-2000 #sequence_revision 20-Aug-2000 #text_change 15-Sep-2000
C;Accession: B82065
R;Heidelberg, J.F.; Eisen, J.A.; Nelson, W.C.; Clayton, R.A.; Gwinn, M.L.; Dodson, R.J., chardson, D.; Ermolaeva, M.D.; Vamathevan, J.; Bass, S.; Qin, H.; Dragoi, I.; Sellers, I, R.R.; Mekalanos, J.J.; Venter, J.C.; Fraser, C.M.
Nature 406, 477-483, 2000
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                                 R; Thomas, K.
submitted to the EMBL Data Library, January 1995
s. Reference number: 219907
s. Accession: T24560
s. Status: preliminary; translated from GB/EMBL/DDBJ
s. Residues: 1-796 < WI2>
s. Residues: 1-796 < WI2>
s. Residues: 1-796 < WI2>
s. Experimental source: clone T05H10
c. Genetics:
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C; Species: Saccharomyces cerevisiae
C; Date: 19-Mar-1997 #sequence_revision 25-Apr-1997 #text_change 22-Oct-1999
C; Accession: S74292
R; Wedlar, H: Wamburt, R.
Submitted to the Protein Sequence Database, September 1996
A; Reference number: S74288
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A;Map position: 2
A;Introns: 77/1; 128/2; 163/1; 249/3; 559/3; 561/3; 648/3; 776/3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 796;
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A; Residues: 1-145 <WED>
A; Cross-references: EMBL:X59720; GSPDB:GN00003; MIPS:YCR068w-a
C; Genetics:
A; Gene: MIPS:YCR068w-a
A; Map position: 3R
C; Superfamily: Saccharomyces hypothetical protein YCR068w-a
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Pred. No. 76;
0; Mismatches
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Pred. No. 24;
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A; Experimental source: clone K02C4
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85.7%;
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Similarity 75.0%;
6; Conservative (
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S74292
hypothetical protein YCR068w-a
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A;Molecule type: DNA
A;Residues: 1-185 <HEI>
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Best Local Similarity
Matches 6; Conserv
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Best Local Similarity
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Glutamate synthase (NADPH) (EC 1.4.1.13) small chain - Escherichia coll
C; Species: Escherichia coli
C; Species: Escherichia coli
C; Species: Escherichia coli
C; Date: 12-Sep-1997 #sequence_revision 17-Sep-1997 #text_change 29-Sep-1999
C; Accession: G65112; B29617
R; Blattner, F.R.; Plunkett III, G.; Bloch, C.A.; Perna, N.T.; Burland, V.; Riley, M.;
A.; Rose, D.J.; Mau, B.; Shao, Y.
Science 277, 1453-1462, 1997
A; Title: The complete genome sequence of Escherichia coli K-12.
A; Reference number: A64720; MUD:97426617
A; Reference number: A64720; MUD:97426617
A; Residuas: preliminary; nucleic acid sequence not shown; translation not shown
A; Molecule type: DNA
A; Molecule type: DNA
A; Residuaes: 1-472 cBLATA
A; Residuaes: 1-472 cBLATA
A; Residuaes: 1-472 cBLATA
A; Residuaes: 1-472 cBLATA
A; Cross-references: GB:AE000400; GB:U00096; NID:92367203; PIDN:AAC76245.1; PID:917896
A; Experimental source: strain K-12, substrain MG1655
A; Experimental source: strain K-12, substrain MG1655
C; Rio Cosset, G.; Sanchez-Pescador, R.; Lozoya, E.; Ku, L.M.; Flores, N.; Bec
Gene 60, 1-11, 1987
A; Title: Determination of the nucleotide sequence for the glutamate synthase structur
                                                           A;Accession: G82083
A;Status: preliminary
A;Molecule type: DAPPED PROPERTY
A;Molecule type: A;Molecule type: DAPPED PROPERTY
A;EASIGUS: 1-471 CHEL>
A;Cross-references: GB:AE004308; GB:AE003852; NID:g9656946; PIDN:AAF95520.1; GSPDB:GN
A;Experimental source: serogroup 01; strain N16961; biotype El Tor
C;Genetics:
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A; Residues: 1-37, 'ARP', 41, 'RRLTAACRÁA', 52-122, 'K', 124-173,'C',175-256, 'CTQRCRSSSPTPNS
A; Cross-references: GB:M18747; NID:g146207; PIDN:AAA23905.1; PID:g146209
A;Title: DNÄ Sequence of both chromosomes of the cholera pathogen Vibrio cholerae.
A;Reference number: A82035; MUID:20406833
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C;Superfamily: glutamate synthase small chain
C;Keywords: glutamate biosynthesis; NADP; oxidoreductase
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Pred. No. 73;
0; Mismatches
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Pred. No. 73;
0; Mismatches
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A;Map position: 1
C;Superfamily: glutamate synthase small chain
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85.7%;
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Matches 6; Conservative
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96 GRVCPQD 102
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95 GRVCPQD 101
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Job time: 138 sec
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A; Molecule type: DNA
A; Residues: 1-340 CTAR.
A; Cross-references: EMBL:U08028; NID:9555667; PIDN:AAA68868.1; PID:9555668
A; Cross-references: EMBL:U08028; NID:95142655;
C; Complex: heterodimer; alpha (PIR:S69194) and beta (PIR:S69194) chain [validated; MUID: C; Complex: heterodimer; alpha (PIR:S69194) chain [validated; MUID: C; Superfamily: N4-(beta-N-acetylglucosaminyl)-L-asparaginase
C; Keywords: heterodimer; hydrolase.
C; Keywords: heterodimer; hydrolase.
C; Keywords: heterodimer; hydrolase.
C; Keywords: heterodimer; harothylglucosaminyl)-L-asparaginase alpha chain #status pred F; 46-196/Product: N4-(beta-N-acetylglucosaminyl)-L-asparaginase beta chain #status experting F; 197/Active site: Thr #status predicted
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R. Pekarsky, Y.; Campiglio, M.; Siprashvili, Z.; Druck, T.; Sedkov, Y.; Tillib, S.; Draga Proc. Natl. Acad. Sci. Us.A. 95, 8744-8749, 1998
A. Title: Mitrilase and Fhit homologs are encoded as fusion proteins in Drosophila meland A. Reference number: 22332; MUID:98337986
A. A. Accession: T43198
A. Status: preliminary: translated from GB/EMBL/DDBJ
A. Molecule type: mRNA
                                                                                                                                                      C.Date: 06-Dec-1996 #sequence_revision 13-Mar-1997 #text_change 26-May-2000
C.Accession: S69194
R.Tarentino, A.L., Quinones, G.; Hauer, C.R.; Changchien, L.M.; Plummer Jr., T.H.
Arch. Biochem. Biophys. 316, 399-406, 1995
A.Title: Molecular cloning and sequence analysis of Flavobacterium meningosepticum glycomerce number: S69194; MUID:95142655
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                                                                                                  -{beta-N-acety1glucosaminy1}-L-asparaginase (EC 3.5.1.26) precursor [validated]
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Species: Caenorhabditis elegans
Date: 11-Jan-2000 #sequence_revision 11-Jan-2000 #text_change 21-Jul-2000
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Pred. No. 54;
1; Mismatches
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1; Mismatches
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83.3%; Pred. No.
                                                                                                                            C; Species: Flavobacterium meningosepticum
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62.5%;
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Best Local Similarity 83.3
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Gapop 10.0 , Gapext 0.5
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GLPK_RAT
YGET_ECOLI
AEGA_ECOLI
2P2_RABIT
ZP2_HUAGN
ZP2_MACRA
BGLS_HANAN
ZP2_MACRA
BGLS_HANAN
PTPN_BOVIN
PTPN_ROUSE
PTRN_ROUSE
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DPOL_RCMVM
NUSG_CGDAM
NUSG_CGDAM
SM3E_CHICK
YRS7_CAEEL
DPOL_HSVT1
DPOL_HSVT1
DPOL_FLAME
GLTD_ECOLI
TRPE_SYNY3
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Q85428 rat cytomeg
P36262 citrus gree
Q42237 gallus gall
Q10003 caenorhabdi
Q9yus3 herpesvirus
Q9yus3 herpesvirus
Q47898 flavobacter
P09832 escherichia
P20170 synechocyst
Q64516 mus musculu
Q63060 rattus norv
Q46820 escherichia-
  Q64516
Q6300
Q46820
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P37127
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P56722
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9 methanobact
1 varicella-z
7 schistosoma
8 azotobacter
7 azotobacter
2 schizosacch
5 mus musculu
                                                                                                                                                                                                                        7 escherichia
9 oryctolagus
6 homo sapien
6 macaca radi
5 hansenula a
2 bos taurus
9 homo sapien
3 mus musculu
9 rattus norv
2 human herpe
6 azospiriilu
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escherichia
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45	44	43	42	41	40	39	38	37	36	35	34
31	31	31	31	<u>3</u>	31	31	31	31	31	31	31
68.9	68.9	68.9	68.9	68.9	68.9	68.9	68.9	68.9	68.9	68.9	68.9
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POLG_TVMV	POLG_PPVEA	DPOL_HCMVA	DPOL_RHCM6	SM3E_MOUSE	SM3E_HUMAN	Y022_TREPA	ZP2_FELCA	ZP2_CANFA	BAIH_EUBSP	PACR_RAT	C4A2_DROME
						083066				P32215	Q9vms8
t genome po	p genome po	human cyton	rhesus cytc	mus musculu	homo sapien	treponema p	felis silve	canis famil	eubacterium	rattus norv	drosophila

ALIGNMENTS

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"DNA sequence of both chromosomes of the cholera pathogen Vibrio cholerae.", "Nature 406:477-483(2000). [6] CHARACTERIZATION. MEDLINE-91271365; PubMed-2052603; Fasano A., Baudry B., Pumplin D.W., Wasserman S.S., Tall B.D.,	ENCE FROM N.A. INN-EL TOR N16961 / SEROTYPE 01; INN-EL TOR N16961 / SEROTYPE 01; INN-ELO400683; PubMed-10952301; slberg J.F., Eisen J.A., Nelson W.C., Clayton R.A., Gwalberg J.F., Eisen J.A., Nelson W.C., Peterson J.D., Umayan S.R., Nelson K.E., Read T.D., Tettelin H., Richardson S.R., Nelson K.E., Read T.D., Tettelin H., Dragoi I., nald L., Utterback T., Fleishmann R.D., Nierman W.C., per S.L., Smith H.O., Colwell R.R., Mekalanos J.J., Ver S.L., Smith H.O., Colwell R.R., Mekalanos J.J., Ver C.M.;	SEQUENCE FROM N.A. STRAIN-0139-TOR OGAMA; Zhi-Yong H., Wei-Jie Z., Xiang-Fu W.; Zhi-Yong H., Wei-Jie Z., Xiang-Fu W.; "Cloning and Expression of zot Gene from Vibrio cholerae."; "Cloning and Expression of zot Gene from Vibrio cholerae."; Submitted (JAN-1999) to the EMBL/GenBank/DDBJ databases. [4] SEQUENCE FROM N.A. STRAIN-EL TOR 86015 / SEROTYPE 01; KAN B., Liu Y.Q., Qi G.M., Gao S.Y.; Submitted (JAN-2000) to the EMBL/GenBank/DDBJ databases. [5]	SEQUENCE FROM N.A. STRAIN-CLASSICAL INABA 569B; MEDLINE-92112300; PubMed-1730472; Baudry B., Fasano A., Ketley J., Kaper J.B.; "Cloning of a gene (zot) encoding a new toxin produced by Vibrio cholerae."; Infect. Immun. 60:428-434(1992). [2] SEQUENCE FROM N.A. STRAIN-KNIH002; SCHIN J., Park Y.C., Kim Y.C.; "Cloning and nucleotide sequence analysis of the virulence gene cassette from Vibrio cholerae KNIH002 isolated in Korea."; Misainmurhag Hoiji 35:205-210(1999).	VIBCH STANDARD; PRT; 399 AA. ZOT_VIBCH STANDARD; PRT; 399 AA. P38442; O9L7Q6; Q9R3V6; O1-OCT-1994 (Rel. 30, Created) O1-OCT-2000 (Rel. 40, Last sequence update) O1-OCT-2000 (Rel. 40, Last annotation update) ZONA OCCLUDENS TOXIN (ZONULAR OCCLUDENS TOXIN). ZOT OR VC1458. VLDrio cholerae. Bacteria; Proteobacteria; gamma subdivision; Vibrionaceae; Vibrio. NCBL_TaxID=666;

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P SEQUENCE FROM N.A.

X MEDIINE=96335691; PubMed-8757999;
A Beuken E., Slobbe R., Bruggeman C.A., Vink C.;
T "Cloning and sequence analysis of the genes encoding DNA pollycoprotein B, ICP18.5 and major DNA-binding protein of rate of the gene of the genes encoding DNA pollycoprotein B, ICP18.5 and major DNA-binding protein of rate of the genes of the gene
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Best Local S
Matches 7
                This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation -
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Betaherpesvirinae; Muromegalovirus.
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Q85428;
15-DEC-1998
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TIGR; VC1458;
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Proc. Natl. Acad. Sci. U.S.A. 88:5242-5246(1991)
-I- FUNCTION: INCREASES THE PERMEABILITY OF THE SMALL INTESTIL
BY AFFECTING THE STRINGHIPP OF THE SMALL INTESTI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            "Vibrio cholerae proc
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(Rel.
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            Swiss Institute
Bioinformatics
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. 37, Last sequence upo
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EC 2.7.7.7).
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IN STRAINS 569B AND 86015)
IN STRAIN 569B).
IN STRAIN 569B).
IN STRAIN 86015).
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STRAIN 86015).
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RESULT 3

NUSC_C GDAB 
ID NUSC_C
AC P36262
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DT 01-JUN
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DE TRANSC
GN NUSG.
OS Citrus
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SEQUENCE
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                                                                                                                                                                                                                                                                                                          EMBL; M94319; AAA23104.1; -.
                                                                                                                                                                                                                                         Transcription termination.
                                                                                                                                                                                                                                                               InterPro; IPR001062; -. PROSITE; PS01014; NUSG; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Villechanoux S., Garnier M., Laigret F., Renaudin J., Bove J.M.;
Submitted (XXX-1992) to the EMBL/GenBank/DDBJ databases.
-!- FUNCTION: INFLUENCES TRANSCRIPTION TERMINATION AND
ANTITERMINATION. ACTS AS A COMPONENT OF THE TRANSCRIPTION COMPLEX,
AND INTERACTS WITH THE TERMINATION FACTOR RHO AND RNA POLYMERASE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUSG_CGDAB
P36262;
01-JUN-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=2707;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Bacteria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Citrus greening
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PROSITE; PRO0116; DNA_POLYMERASE_B; 1.

Transferase; DNA-directed DNA polymerase; DNA replication; DNA-binding; Nuclear protein.

SEQUENCE 1120 AA; 124853 MW; 12FFAAE95EF54FC4 CRC64;
  21
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                     RVCVQDG
RVCVSDG
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                                                                                       Similarity 6; Conserv
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27
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Rel. 29, Last sequence update)
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ANTITERMINATION PROTEIN NUSG (FRAGMENT).
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85.7%;
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75.0%;
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                                                                             Score 34; DB
Pred. No. 3.6;
0; Mismatches
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RESULT 4 SM3E_CHICK

밁 Q

SM3E_CHICK STAN 042237; 090666; 30-MAY-2000 (Rel. 3 30-MAY-2000 (Rel. 3 30-MAY-2000 (Rel. 3

Created)

39, 39,

Last sequence update)
Last annotation.update)
OR (COLLAPSIN-5) (COLL-5).

STANDARD;

PRT;

785 AA

SEMA3E OR COLL5 SEMAPHORIN 3E PRECURSOR

Gallus gallus (Chicken). Gallus gallus (Chicken). Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Eukaryota; Metazoa; Chordata; Galliformes; Phasianidae; Phasiani

Phasianinae;

"Secreted chick semaphorins bind recombinant neuropilin with similar affinities but bind different subsets of neurons in situ."; Neuron 19:539-545(1997).

TISSUE-Fetal brain MEDLINE-97470887;

brain;

PubMed-9331347;

SEQUENCE FROM N.A. NCBI_TaxID=9031;

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STITE TO THE TRANSPORT OF THE TRANSPORT 
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                                                                          Query Match
Best Local
                                                 Matches
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CARBOHYD
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DOMAIN
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MEDLINE-9532929; Pubmed-7605628;
Luo Y., Shepherd I., Li J., Renzi M.J., Chang S., Raper J.A.;
"A family of molecules related to collapsin in the embryonic chick
                                                                                                                                                                                                                                                                                                                                                                                                             DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                            SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Developmental
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Signal; Immunoglobulin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           InterPro; IPR000292;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -1- SIMILARITY: BELONGS TO THE SEMAPHORIN FAMILY.
-1- SIMILARITY: CONTAINS 1 IMMUNOGLOBULIN-LIKE C2-TYPE DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          nervous system."
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SUBCELLULAR LOCATION: SECRETED.
TISSUE SPECIFICITY: COLLAPSIN-1, -2, -3, AND -5 E
OVERLAPPING BUT DISTINCT AXON TRACTS.
DOMAIN: STRONG BINDING TO NEUROPILIN IS MEDIATED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FUNCTION: INDUCES THE COLLAPSE AND PARALYSIS OF NEURONAL GROWTH CONES. COULD POTENTIALLY ACT AS REPULSIVE CUES TOWARD SPECIFIC NEURONAL POPULATIONS. BINDS TO NEUROPILIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  THIRD OF THE PROTEIN.
    GRVCVQD
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                                                 Similarity
6; Conserv
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26 785
244 544
51 740
1 780
1 780
1 30
600
246
248
250
90978 MW;
                                                   Conservative
                                                                                                                                                                                                                                                                                                                                      658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              protein;
                                                                     75.6%;
85.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Glycoprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         domain; Multigene family; Neurogenesis;
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N-LINKED (GLCNAC...) (PO)
N-LINKED (GLCNAC...) (PO)
N-> D (IN REF. 2).
V-> I (IN REF. 2).
L-> F (IN REF. 2).
W; E551EBF717630632 CRC64;
                                                 0
                                                                          Score 34; DB
Pred. No. 37;
                                                                                                                                                                                                                                                                                                                                                         IG-LIKE C2-TYPE DOMAIN. ARG/LYS-RICH (BASIC).
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                                              Mismatches
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MBL outstation -
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Matches 6; Conserv
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DOMAIN
SEQUENCE 79
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Q10003;
01-OCT-1996
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Q9YUS3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Lightning
Submitted
polymerase gene.";
J. Gen. Virol. 79:3049-3053(1998).
-i- CATALYTIC ACTIVITY: N DEOXYNUCLEOSIDE TRIPHOSPHATE =
                                                                                SEQUENCE FROM N.A. MEDLINE-99094630; PubMed-9880021; Springfeld C., Tidona C.A., Kehm
                                                                                                                                                              Herpesvirus tupaia (Strain Viruses; dsDNA viruses, no Betaherpesvirinae. NCBI_TaxID=132677;
                                                                                                                                                                                                                                                                                       01-OCT-2000
01-OCT-2000
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EMBL; 247812; CAA87798.1; --
EMBL; 247812; CAA87796.1; --
EMBL; 247811; CAA87796.1; JOINED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRAIN-BRISTOL N2;
Lightning J., Thomas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Caenorhabditis elegans.
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30-MAY-2000
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                                        "Identification and characterization polymerase gene.":
                                                                                                                                                                                                                                                 DPOL
                                                                                                                                                                                                                                                                  DNA POLYMERASE (EC
                                                                                                                                                                                                                                                                                                                                 01-OCT-2000
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38 4

67 7

524 5

796 AA;
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190.8
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                                                                                                                                                                                                                                                                  40, Last sequence up 40, Last annotation C 2.7.7.7).
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39, Last annotation of
KDA PROTEIN T05H10.7
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70
527
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POLY-GLU.
POLY-GLU.
7BDF8E0A4D2AA9F1 CRC64;
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Pred. No.
                                                                                                                                                                                                         (THV-1).
A stage;
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of the Tupaia l
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37;
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                                                               herpesvirus
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RESULT 7
DPOL_HSVT2
ID DPOL_H
AC Q9VISZ
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RT 1/G
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Best Local
                                                entities requires a license agreement (S or send an email to license@isb-sib.ch).
                                                                                                                          This SWISS-PROT entry is copyright. It is produced through a copyright the EMBL the European Bioinformatics Institute. There are no restrict use by non-profit institutions along as its content is content in the content in the content in the content is content in the content i
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q9YUS2;
01-OCT-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE=99094630; PubMed=9880021;
Springfeld C., Tidona C.A., Kehm R.,
"Identification and characterization
polymerase gene.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-OCT-2000 (Rel. 40, Created)
01-OCT-2000 (Rel. 40, Last sequence update)
01-OCT-2000 (Rel. 40, Last annotation update)
DNA POLYMERASE (EC 2.7.7.7)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Betaherpesvirinae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Herpesvirus tupaia (Strain
Viruses; dsDNA viruses, no
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DPOL_HSVT2
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PRINTS; PR00106; DNAPOLB.
PROSITE; PS00116; DNA_POLYMERASE_B; 1.
Transferase; DNA-directed DNA polymerase; DNA replication;
DNA-binding; Nuclear protein.
SEQUENCE 1171 AA; 128622 MW; CDC0480FEACFC7EC CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its modified and this statement is not removed. Usage by and for commercial or send an email to icense@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          515
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SUBCELLULAR LOCATION: NUCLEAR.
SIMILARITY: BELONGS TO DNA POLYMERASE TYPE-B FAMILY.
                                                    non-profit institutions as long as its content is in no way and this statement is not removed. Usage by and for commercial requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PYROPHOSPHATE + DNA(N).
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AAD08667.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  79:3049-3053(1998).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      75
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    THV-2).
    RNA stage; Herpesviridae;

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Pred. No. 54;
0; Mismatches
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of the
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54;
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he Tupaia herpesvirus
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g protein.";
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This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its way non-profit institutions as long as its content is in no way entitied and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local
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Guan C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                        meningosepticum.";
Protein Sci. 7:774-781(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Tarentino A.L., Plummer T.H. Jr.;
"The first demonstration of a procaryotic glycosylasparaginase.";
Biochem. Biophys. Res. Commun. 197:179-186(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "Crystal structure of glycosylasparaginase from Flavobacterium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   X-RAY CRYSTALLOGRAPHY (2.32 ANGSTROMS).
MEDLINE=98200483; PubMed=9541410;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE OF 46-59 AND 197-211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "Molecular cloning and sequence analysis of Flavobacterium meningosepticum glycosylasparaginase: a single gene encodes and beta subunits.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ASPG_FLAME STANDARD; PRT; 340 AA. Q47898; Q1-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
01-NOV-1997 (Rel. 35, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
N4-(BETA--ACETYLGLUCOSAMINYL)-L-ASPARAGINASE PRECURSOR (EC 3.5.1.26)
(GLYCOSYLASPARAGINASE) (ASPARTYLGLUCOSAMINIDASE) (N4-(N-ACETYL-BETA-GLUCOSAMINYL)-L-ASPARAGINE AMIDASE) (NGA).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE=94071939;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE-55142655; Pubmaa ~-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Plummer T.H. Jr.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Bacteria; CFB group; Flavobacteria; Flavobacteriaceae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=238;
                                                                                                                                                                  FUNCTION: CLEAVES THE GLONGC-ASN BOND WHICH JOINS OLIGOSACCHARIDES
TO THE PEPTIDE OF ASPARAGINE-LINKED GLYCOPROTEINS. REQUIRES THAT
THE GLYCOSYLATED ASPARAGINE MOIETY IS NOT SUBSTITUTED ON
ITS AMINO (R1) AND CARBOXYL (R2) TERMINUS.
CATALYTIC ACTIVITY: N4-(BETA-N-ACETYL-D-GLUCOSAMINYL)-L-ASPARAGINE
+ H(2)O = N-ACETYL-BETA-GLUCOSAMINYLAMINE + L-ASPARATE.
SUBUNIT: HETERODIMER OF AN ALPHA AND A BETA CHAINS.
SUBCELLULAR LOCATION: PERIPLASMIC.
SIMILARITY: BELONGS TO THE ASPARAGINASE 2 FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRINTS; PR00106; DNAPOLE.

PROSITE; PS00116; DNA_POLYMERASE_B; 1.

Transferase; DNA-directed DNA polymerase; DNA replication; DNA-binding; Nuclear protein.

SEQUENCE 1171 AA; 128590 MW; D2D64897FD5E70E8 CRC64;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           van Roey P.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Tarentino A.L., Grimwood B.G.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity 6; Conserv
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85.7%;
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RESULT
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SIGNAL 1 45
CHAIN 46 196
CHAIN 197 340 GLYC
CHAIN 197 340 GLYC
DISULFID 113 126
DISULFID 213 277 OR 3
ACT_SITE 197 197 BY S
SEQUENCE 340 AA; 37262 MW; 4C
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE-88152492; PubMed-3326786;
Ollver G., Gosset G., Sanchez-Pescador R., Lozoya Flores N., Becerril B., Valle F., Bolivar F.;
"Determination of the nucleotide sequence for the structural genes of Escherichia coli K-12.";
Gene 60:1-11(1987).
                                                                                                                                                                                                                                                                                                                                                                                   STRAIN-K12 / MG1655;

MEDLINE-97426617; PubMed-9278503;

Blattner F.R., Plunkett G. III, Bloch C.A., Perna.N.T., Burland V.,

Riley M., Collado-Vides J., Glasner J.D., Rode C.K., Mayhew G.F.,

Gregor J., Davis N.W., Kirkpatrick H.A., Goeden M.A., Rose D.J.,
                           DISCUSSION OF SEQUENCE.
MEDLINE-89098858; PubMed-2643092;
GOSSET G., Merino E., Recillas F.
"Amino acid sequence analysis of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-NOV-1995 (Rel. 32, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
GLUTAMATE SYNTHASE [NADPH] SMALL CHAIN (EC 1.4.1.13) (GLUTAMATE SYNTHASE BETA SUBUNIT) (NADPH-GOGAT) (GLTS BETA CHAIN).
                                                                                                                                           "Comparing the predicted and observed print the genome of Escherichia coli K-12 Electrophoresis 18:1259-1313(1997).
                                                                                                                                                                                                            STRAIN-K12 / EMG2;
MEDLINE-97443975; PubMed-9298646;
Link A.J., Robison K., Church G.M
                                                                                                                                                                                                                                                                                                                         Science
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STRAIN-K12 / MG165
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                                                                                                                                                                                                                                                                               SEQUENCE OF 1-12.
                                                                                                                                                                                                                                                                                                                         "The complete genome sequence of Science 277:1453-1474(1997).
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                                                                                                                                                                                                                                                                                                                                                                        B., Shao'Y.;
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sequence analysis of coli K-12.";
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                                                       Becerril B.,
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           TRPE OR SLR0738.
Synechocystis.sp. (strain Bacteria; Cyanobacteria; NCBI_TaxID=1148;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL; M18747; AAA23905.1; -. EMBL; U18997; AAA58015.1; -. EMBL; AE000400; AAC76245.1; -- EMBL; B29617; B29617.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRINTS;
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MISCELLANEOUS: GLUTAMINE BINDS TO THE LARGE SUBUNIT AND TRANSFERS THE AMIDO GROUP TO 2-OXO-GLUTAMATE THAT APPARENTLY BINDS TO THE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SIMILARITY: THE IRON-SULFUR CENTERS 'BACTERIAL-TYPE' 4FE-4S FERREDOXINS
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IPR000759; -.
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E -> K (IN REF.
V -> C (IN REF.
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C4070F7509C561A8 CRC64;
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IRON-SULFUR (4FE-4S) (POTENTIAL).
IRON-SULFUR (4FE-4S) (POTENTIAL).
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                                                                                         4.1.3.27).
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GLPK_MOUSE
ID GLPK_M
AC Q64516
DT 01-NOV
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DE GLYCER
DE GLYCER
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OS MUS MU
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Best Local S
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                                                                                    01-NOV-1997
01-NOV-1997
01-OCT-2000
                                                                                                                                                                                                                                                                                                                                                                                                              EMBL; D90899; BAA16689.1; -
EMBL; J04195; AAA88627.1; A
EMBL; J04195, AAA86627.1; A
PIR; B32124; B32124.
PIR; C32124; C32124.
                                                    01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
01-OCT-2000 (Rel. 40, Last annotation update)
GLYCEROL KINASE (EC 2.7.1.30) (ATP:GLYCEROL 3-PHOSPHOTRANSFERASE)
(GLYCEROKINASE) (GK).
                                          GK OR GYK.
                                                                                                                                Q64516;
                                                                                                                                            GLPK_MOUSE
                                                                                                                                                                                                                                                                                                                                                                  InterPro; IPR000350; -
Pfam; PF00425; chorismate_bind;
PRINTS; PR00095; ANTSNTIASEI.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           use by non-profit institutions as long a modified and this statement is not removed. entitles requires a license agreement (See ) or send an email to licenseelsb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the Ew the European Bioinformatics Institute. There are no restruse by non-profit institutions as long as its content
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SIMILARITY).

-1- MISCELLANDOUS: COMPONENT I CATALYZES THE FORMATION OF ANTHRANILATE USING AMMONIA RATHER THAN GLUTAMINE, WHEREAS COMPONENT II PROVIDES GLUTAMINE AMIDOTRANSFERASE ACTIVITY.

-1- SIMILARITY: BELONGS TO THE ANTHRANILATE SYNTHASE COMPONENT I
                                                                                                                                                                                                                   363 GRVCVQ 368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PYRUVATE + L-GLUTAMATE
-I- PATHWAY: FIRST STEP IN BIOSYNTHESIS
-I- SUBUNIT: TETRAMER OF TWO COMPONENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE OF 1-408 FROM N.A.
MEDLINE-89034300; PubMed-3141423;
Reilly P., Hulmes J.D., Pan Y.C.E., Nelson N.;
"Molecular cloning and sequencing of the psaD gene encoding II of photosystem I from the cyanobacterium, Synechocystis s
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Kaneko T., Sato S., Kotani H., Tanaka A., Asamizu E., Nakamura Y., Mijujima N., Hirosawa M., Sugiura M., Sasamoto S., Kimura T., Hosouchi T., Matsuno A., Muraki A., Nakazaki N., Naruo K., Okumura S., Shimpo S., Takeuchi C., Wada T., Watanabe A., Yamada M., Yasuda M., Tabata S., "Sequence analysis of the genome of the unicellular cyanobacterium entire genome and assignment of potential protein-coding regions.",
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DNA Res.
                                                                                                                                                                                                                                  1 GRVCVQ 6
                             musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Biol. Chem. 263:17658-17662(1988).
- CATALYTIC ACTIVITY: CHORISMATE +
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAUTION: REF.2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAUTION: REF.2 SEQUENCE DIFFERS FROM THAT SHOWN DUE FRAMESHIFT IN POSITION 182.
                                                                                                                                                                                                                                                                          Similarity
6; Conser
            Metazoa;
                                                                                                                                                                                                                                                                                                                                            biosynthesis; L
508 AA; 57147
                             (Mouse)
                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                           STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PubMed-8905231;

3. Kotani H., Tanaka A., Asamizu E., Nakamuru.
Osawa M., Sugiura M., Sasamoto S., Kimura T.,
Muraki A., Nakazaki N., Naruo K.,
Muraki A., Nakazaki N., Watanabe A.,
Chordata; Craniata; Vertebrata;
                                                                                                                                                                                                                                                                                  73.38;
                                                                                                                                                                                                                                                                                                                                                        Lyase.
                                                                                                                                                                                                                                                                                                                                           MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                          ALT_FRAME
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                                                                                                                                                                                                                                                                  Score 33; DB; Pred. No. 38; 0; Mismatches
                                                                                                                                                                                                                                                                       0;
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                                                                                                                                      524
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38;
                                                                                                                                     A
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    Euteleostomi,
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GLPK_RAT ID GLPK AC 0500 DT 15-J DT 01-C DE GLYC DE GLYC DE TRABOO OC EUKE OC EUKE OC EUKE OC EUKE OC EUKE OC EUKE OC Mamm OX NCBJ RN [1] RP SEQUE RC STRU RT MO:

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15-JUL-1998 (Rel. 36, Created)
15-JUL-1998 (Rel. 36, Last sequence update)
01-OCT-2000 (Rel. 40, Last annotation update)
GLYCEROL KINASE (EC 2.7.1.30) (ATP:GLYCEROL 3-PHOSPHOTRANSPEF (GLYCEROKINASE) (CK) (ATP-STIMULATED GLUCOCORTICOID-RECEPTOR
     Biochem. Biophys. Res. C
                                                                          STRAIN-SPRAGUE-DAWLEY; TISSUE-Liver;
MEDLINE-93312338; PubMed-8323560;
Okamoto K., Hirano H., Isohashi F.;
"Molecular cloning of rat liver gluc
                                                               promoter.";
                                                                                                                                                                                                                                                                   Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                              SEQUENCE FROM N.A
                                                                                                                                                                                                                                                  NCBI_TaxID=10116
                                                                                                                                                                                                                                                                                                                          Rattus norvegicus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PROSITE; PS00445; FGGY_KINASES_2; 1.
PROSITE; PS00933; FGGY_KINASES_1; 1.
Glycerol metabolism; Transferase; Kinase; ATP-bi
NP_BIND 167 179 ATP (PROBABLE).
SEQUENCE 524 AA; 57458 MM; C3E1C56887683B55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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HSSP; P08859; IGLB.
MGD; MGI:106594; Gyk.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -I- FUNCTION: KEY ENZYME IN THE REGULATION OF GLYCEROL UPTAKE
METABOLISM (BY SIMILARITY).
-I- CATALYTIC ACTIVITY: ATP + GLYCEROL = ADP + GLYCEROL 3-PHO
-I- PATHWAY: RATE-LIMITING STEP IN GLYCEROL UTILIZATION.
-SUBCELLOUAR LOCATION: BOUND TO THE MITOCHONDRIAL SURFACE
-YYOPLASMIC (BY SIMILARITY).
-I- SIMILARITY: BELONGS TO THE FUCOKINASE / GLUCONOKINASE /
GLYCEROKINASE / XYLULOKINASE FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              266
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InterPro; IPR000577;
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Disteche C.M., Craigen W.J
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Huq A.H., Lovell R.S., Sampson M.J.,
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NCBI_TaxID=10090;
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                                                                                                                                                                                                                                                                                         (Rat).
a; Chordata;
                                                                                                                                                                                                                                                                   Rodentia;
                                                                     , Isohashi F.; rat liver glucocorticoid-receptor translocation
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Commun. 193:8
S THE BINDING
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Pred. No.
                                                                                                                                                                                                                                                     Craniata; Vertebrata; Euteleostomi;
Sciurognathi; Muridae; Murinae; Rat
193:848-854(1993).
NDING OF ACTIVATED
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39;
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GLUCOCORTICOID
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Matches
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15-DEC-1998 (
15-JUL-1999 (
HYPOTHETICAL
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Q46820;
               use by modified
                                                                                         -I- COFACTOR: BINDS TWO 4FE-4S CLUSTERS (POT-
-I- SIMILARITY: THE IRON-SULFUR CENTERS ARE
-I- SIMILARITY: STRONG, TO E.COLI GLUTAMATE
CHAIN (GLTD) AND TO E.COLI AEGA.
                                                                                                                                                                                       STRAIN-K12 / MG1655;
MEDLINE-97426617; PubMed-9278503;
Blattner F.R., Plunkett G. III, Bloch C.A., Perna N.T., Burland Riley M., Collado-Vides J., Glasner J.D., Rode C.K., Mayhew G.F. Gregor J., Davis N.W., Kirkpatrick H.A., Goeden M.A., Rose D.J., Mau B., Shao Y.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PROSITE; PS00933; FGGY_KINASES_1; 1.

PROSITE; PS00445; FGGY_KINASES_2; 1.

Glycerol metabolism; Transferase; Kinase; ATP-binding.

NP_BIND 167 179 ATP (PROBABLE).

SEQUENCE 524 AA; 57477 MW; A620C296D32B6B84 CRC64;
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                                                                                                                                                                                                                                                                                                             Bacteria; Pr
Escherichia.
                                                                                                                                                                                                                                                                                                                                        Escherichia
                                                                                                                                                              "The complete genome sequence of Escherichia coli K-12.";
Science 277:1453-1474(1997).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       266 GQMCFQDG 273
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FUNCTION: KEY ENZYME IN THE REGULATION OF GLYCEROL UPTAKE AND
METABOLISM (BY SIMILARITY).
CATALYTIC ACTIVITY: ATP + GLYCEROL = ADP + GLYCEROL 3-PHOSPHATE.
PATHWAY: RATE-LIMITING STEP IN GLYCEROL UTILIZATION.
SUBCELLULAR LOCATION: BOUND TO THE MITOCHONDRIAL SURFACE OR
CYTOPLASMIC (BY SIMILARITY).
SIMILARITY: BELONGS TO THE FUCOKINASE / GLUCONOKINASE /
SIMILARITY: BELONGS TO THE FUCOKINASE / GLUCONOKINASE /
                                                   SWISS-PROT entry is copyright. It is produced through a ceen the Swiss Institute of Bioinformatics and the EMBL
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P08859; 1GLB.
Pro; IPR000577; -.
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              pean Bioinformatics Institute. There
non-profit institutions as long as
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Last sequence update)
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PROTEIN IN KDUI-LYSS
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(See http://www
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ARE SIMILAR TO THOSE
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            Usage
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P37127; P76560; P76970;
01-OCT-1994 (Rel. 30, Crea
01-WOV-1997 (Rel. 35, Last
01-OCT-2000 (Rel. 40, Last
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METAL
                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
STRAIN-K12 / MC4100;
MEDLINE-97113461; PubMed-8955321;
Cavicchioli R., Kolesnikow T., Gunsalus R.P.;
"Characterization of the aegA locus of Escherichia coli: gene expression in response to anaerobiosis and nitrate."
J. Bacteriol. 178:6968-6974(1996).
Aiba H., Baba T., Fujita K., Hayashi K., Honjo A., Horiuch Ikemoto K., Inada T., Isono K., Isono S., Itah T., Kanai I Kasai H., Kashimoto K., Kim S., Kimura S., Kitagawa M., Kitakawa M., Makino K., Masuda S., Miki T., Mizobuchi K., Motomura K., Nakamura Y., Nashimoto H., Nishio Y., Oshima Saito N., Sampei G., Seki Y., Tagami H., Takemoto K., Wada
                                                                                                                                                                             Science
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InterPro; IPR000759; -.
InterPro; IPR001450; -.
Pfam; PF00037; fer4; 1.
                                                                                                                  STRAIN-K12;
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                                                                                                                                       EQUENCE
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                                                                                                                                                                                                                   В.,
                                                                                              Η.,
                                                                                                                                                                           complete genome sequence nce 277:1453-1474(1997).
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RESULT 15
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01-FEB-1996 (Rel. 33, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
20NA PELLUCIDA PEREM-BINDING PROTEIN 2 (ZONA PELLUCIDA GLYCOPROTEIN 2P2) (ZONA PELLUCIDA PROTEIN A) (75 KDA ZONA PELLUCIDA PROTEIN)
                     STRAIN=NEW ZEALAND WHITE; TISSUE=Ovary; MEDLINE=93286072; PubMed=7685342; Lee V.H., Schwoebel E.D., Prasad S.V.,
                                                                                                                                                                                                                                                                                                                                                                                                                                     ZP2_RABIT
P48829;
                                                                                                                                                Oryctolagus cuniculus (Rabbit),
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Lagomorpha; Leporidae; Oryctolagus,
                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                   NCBI_TaxID=9986;
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CONFLICT
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METAL 87
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METAL 285
CONFLICT 488
CONFLICT 513
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PRINTS; PR00419; ADXRDTASE
PROSITE; PS00198; 4FE4S FERREDOXIN; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Yamamoto Y., Yano M.;
Submitted (JAN-1997) to the EMBL/GenBank/DDBJ databases.
-!- COFACTOR: BINDS TWO 4FE-4S CLUSTERS (POTENTIAL).
-!- SIMILARITY: STRONG, TO E.COLI GLUTAMATE SYNTHASE [NADPH] SMJ-CHAIN (GLTD) AND TO E.COLI YGFT.
-!- SIMILARITY: THE IRON-SULFUR CENTERS ARE SIMILAR TO THOSE OF 'BACTERIAL-TYPE' 4FE-4S FERREDOXINS.
-!- CAUTION: REF.1 SEQUENCE DIFFERS FROM THAT SHOWN DUE TO
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Schwoebel E.D.,
Dunbar B.S.;
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4FE-4S CLUSTERS (POTENTIAL).
TO E. COLI GUTAMATE SYNTHASE (NADPH) SMALL E.COLI YGFT.
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     S.V., Cheung
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                                                                                                                                                                                                                                                                                                            CARBOHYD
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J. Biol. Chem. 268:12412-12417(1993).

-i- FUNCTION: ZP2 FORMS WITH ZP1 AND ZP3 THE ZONA PELLUCIDA, I WHICH ZP2 AND ZP3 COMPLEX INTO COPOLYMERS CROSS-LINKED BY ZP2 ACTS AS A SECONDARY SPERM RECEPTOR (BY SIMILARITY).

-i- SUBCELLULAR LOCATION: TYPE I MEMBRANE PROTEIN. EXTRACELLUI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           <del>:</del>
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                                                 -
                                          GRVCVQDG
GELCTODG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PTM: PROTEOLYTICALLY CLEAVED AFTER FERTILIZATION, AND THIS MODIFICATION, ALONG WITH PRESUMED CHANGES IN ZP3 MAY PLAY AN IMPORTANT ROLE IN THE POSTFERTILIZATION BLOCK TO POLYSPERMY. PTM: SULFATED GLYCOPROTEIN WITH O-LINKED OLIGOSACCHARIDES (BY SIMILARITY): CONTAINS 1 ZP DOMAIN.
                                                                                           Similarity 5; Conserv
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EXTRACELLULAR (I
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Q9ns98 homo sapien
Q69390 pseudorabie
Q9kp52 vibrio chol
Q84353 chlamydia t
Q9pk45 chlamydia m
Q9z5y6 pseudomonas
Q76463 caenorhabdi
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Q917q6 vibrio chol
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Q9R3V6
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Q9L8F5;
Q1-OCT-2000
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01-OCT-2000
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NON_TER
SEQUENCE
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Infect. Immun. 68:1507-1513(2000).
EMBL; AF207857; AAF40142.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE-20143766; PubMed-10678967;
Boyd E.F., Moyer K.E., Shi L., Waldor M.K.;
"Infectious CTXPhi and the vibrio pathogenicity island prophage vibrio mimicus: evidence for recent horizontal transfer between
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Vibrio mimicus.
Bacteria; Proteobacteria;
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Pred. No. 1.2;
1; Mismatches
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                                                                                                             Vibrio cholerae.
Bacteria; Proteobacteria;
NCBI_TaxID=666;
       SEQUENCE
                           Submitted (JAN-2000)
                                             rstA(RstA), rstB(RstB),
                                                      "Vibrio cholerae nct-CTXphi whole
                                                                                          SEQUENCE FROM N.A.
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STRAIN-EL TOR N16961 / SEROTYPE 01,

MEDLINE-20406833; PubMed-10952301;

Heidelberg J.F., Eisen J.A., Nelson W.C., Clayton R.A., Gwinn M.L.,

Dodson R.J., Haft D.H., Hickey E.K., Peterson J.D., Umayam L.A.,

Gill S.R., Nelson K.E., Read T.D., Tettelin H., Richardson D.,

Ermolaeva M.D., Vamathevan J., Bass S., Qin H., Dragoi I., Sellers P.,

McDonald L., Utterback T., Fleishmann R.D., Nierman W.C., White O.,

Salzberg S.L., Smith H.O., Colwell R.R., Mekalanos J.J., Venter J.C.,
                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
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STRAIN-0139-TOR OGAWA;
Zhi-Yong H., Wei-Jie Z., Xia
"Cloning and Expression of z
Submitted (JAN-1999) to the
                                                                                                                                                                                                                                                                                                                                                                                                                                             cholerae
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                                                                                                                                                                                                                                                                                                                                                                                                                                 Nature 406:477-483(2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                               "DNA sequence of both chromosomes of the cholerae.":
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Shin H.J., Park Y.C., Kim Y.C.; "Cloning and nucleotide sequence analysis of the vassette from Vibrio cholerae KNIH002 isolated in Misainmurhag Hoiji 35:205-210(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRAIN-KNIH002;
Shin H.J., Park Y.C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Bacteria; Proteobacteria;
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               AF220606;
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AAF29547.1; -.
AA; 44990 MW; CF6A3DBCC9E23EE1 CRC64;
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MEDLINE-97237046; PubMed-9119394;

X MEDLINE-97237046; PubMed-9119394;

A Stankovic T., Byrd P.J., Cooper P.R., McGuire G., Smith A Riley J.H., Watts G.D.J., Ambrose H., McGuire G., Smith A Sutcliffe A., Mills T., Taylor A.M.R.;

"Construction of a transcription map around the gene for telangiectasia: identification of at least four novel generation of a transcription of at least four novel generation yellow the second company of the se
                                                                                                                                                    SEQUENCE FROM N.A. STRAIN=D/UW-3/CX; MEDLINE=99000809; P Stephens R.S., Kalm Mitchell W.P., Olin
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01-NOV-1998
01-NOV-1998
01-MAY-2000
                          Chlamydia trachomatis.",
Science 282:754-759(1998).
EMBL; AE001305; AAC67922.1;
                                                                                                                                                                                                                                                                                                            Chlamydia trachomatis.
Bacteria; Chlamydiales; Chlamydiaceae;
CBI_TaxID=813;
                                                                                                                                       Davis R.W.;
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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01-NOV-1996 (TrembLrel
01-OCT-2000 (TrembLrel
RAB-RELATED GTP-BINDING
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069514;
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STRAIN-MOPN / NIGG;
MEDLINE-20150255; PubMed-10684935;
Read T.D., Brunham R.C., Shen C., Gill S.R.,
White O., Hickey E.K., Peterson J., Utterback
Linher K., Weidman J., Khouri H., Craven B.,
Gwinn M., Nelson W., DeBoy R., Kolonay J., Mc
Elsen J., Fraser C.M.;
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Bacteria; Chlamydiales;
NCBI_TaxID=83560;
                                                                                                   Mycobacterium leprae.
Bacteria; Firmicutes; Actinobacteria;
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NCBI_TaxID=1769;
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Seeger K., Harris
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Craven B., Bowman C., Dodson R.,
lonay J., McClarty G., Salzberg S
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MEDLINE-93188700; PubMed-8446027;
Eiglmeier K., Honore N., Woods S.A., C.
"Use of an ordered cosmid library to do
of Mycobacterium leprae.";
Mol. Microbiol. 7:197-206(1993).
EMBL; AL023596; CAA19155.1; -.
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01-NOV-1998 (TIEN
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F6N15.2 PROTEIN.
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SEQUENCE
          Arabidopsis thaliana (Mouse-ear cress). Rarabidopsis thaliana (Mouse-ear cress). Bukaryota; Viridiplantae; Embryophyta; Trachec Magnoliophyta; eudicotyledons; core eudicots; Brassicales; Brassicaceae; Arabidopsis.
                                                                                 F6N15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-OCT-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Submitted (MAY-1998) to the EMBL/GenBank/DDBJ [2]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa;
Amphibia; Batrachia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q91BG7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Submitted
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Xenopus laevis (African clawed frog)
Eukaryota; Metazoa; Chordata; Crania
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      KIELIN
                                                                                                                                                                                                                                                                         907 KVCVQDG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NCBI_TaxID=8355;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Amphibia; Batrachia; Anura; xenopodinae; Xenopus.
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(MAY-1998)
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Gremburel.
Gremburel.
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EMBL/GenBank/DDBJ
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Last sequence update)
Last annotation updat
                                                                                                                                                                                                                                                                                                                                           Score 36; DB Pred. No. 1.2e 1; Mismatches
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deduce t
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33;
                             Tracheophyta; Spermatophyta;
dicots; Rosidae; eurosids II;
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la; Pipoidea; Pipidae;
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[1]
SEQUENCE FROM N.A.
STRAIN=CV. COLUMBIA;
WASHU;

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Best Local
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Best Local (
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STRAIN-CV. COLUMBIA;
Waterston R.;
Waterston R.;
Submitted (MAY-1998) to the EMBL/GenBank/DDBJ databases.
EMBL; AF069299; AAC19301.1;
SEQUENCE 475 AA; 53173 MW; 22A1951B3828A173 CRC64;
          266
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01-NOV-1999 (TrEMBLrel. 12, Last
01-OCT-2000 (TrEMBLrel. 15, Last
GLYCEROL KINASE-LIKE PROTEIN 1.
GK-RS1 OR GKRS1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q9WU64;
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Ryan E., Edwards J., Pape K.;
"The sequence of A. thallana F6N15.";
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208 RICVEDG 214
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Submitted (JUN-1998) to
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les 5; Conserv
GOLCLODG
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                                                                                                                                   Similarity
5; Conserv
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                                                                                                                                                                                                                                                                                                      549
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                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRELIMINARY;
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                                                                                                                                                                                                                                                                                               59871 MW;
                                                                                                                                                            77.8%;
62.5%;
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71.4%;
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                                                                                                                                                               Score
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Pred.
                                                                                                                                                                                                                                                                              F807404B79F373F9 CRC64;
                                                                                                                         Mismatches
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Mismatches
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No.
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48;
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RESULT

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RESULT
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DT 01
DT 01
DT 01
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Best Local
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Best Local Similarity
Matches 6; Conser
                              Q69390
Q69390;
Q1-NOV-1996
Q1-NOV-1996
Q1-OCT-2000
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Q9NS98;
Q1-OCT-2000
Q1-OCT-2000
Q1-OCT-2000
                                                                                                                                                                                                                                                                                                                                                                                                             "Human semaphorin.";
Submitted (JUL-1999) to the EMBL/GenBank/DDBJ databases
EMBL; AB029496; BAA98132.1; -
SEQUENCE 782 AA; 86700 MW; 85CB424874DF6663 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.

SEQUENCE FROM N.A.

SEQUENCE FROM N.A.

Machida Y., Hattori K., Miyake K., Iijima S.;

Machida Y., Hattori K., Miyake K., Iijima S.;

Molecular cloning and characterization of a novel bacteriophage-
associated endo-N-acetylneuraminidase.";

Submitted (JUN-1998) to the EMBL/GenBank/DDBJ databases.

EMBL; ABO1547; BAA32999.1; -.

INTERERO; IPRO01724; -.

INTERPRO; IPRO02860; -.

PFAM; PFO2012; BNR; 2.

PFAM; PFO2012; BNR; 2.

PRINTS; PRO0849; GLHYDRLASE58.

SEQUENCE 984 AA; 108282 MW; 8B09E37C6CD44858 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
Seki N., Hattori A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Saito T.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEM2.
                                                                                                                                                                 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NCBI_TaxID=9606;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEMAPHORIN SEM2.
                                                                                                                                                                                                                             267 GRVCVND 273
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080102;
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    NOV-1996 (TrEMBLrel. 01, NOV-1996 (TrEMBLrel. 01, OCT-2000 (TrEMBLrel. 15, POLYMERASE (EC 2.7.7.7)
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Primates;
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85.7%;
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75.0%;
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Pred. No. 1.1e
0; Mismatches
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Pred. No.
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Matches 6
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Best Local Similarity 85.
Matches 6; Conservative
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01-OCT-2000 (TrEMBLrel. 15, Cr
01-OCT-2000 (TrEMBLrel. 15, Lr
01-OCT-2000 (TrEMBLrel. 15, Lr
HYPOTHETICAL PROTEIN VC2524.
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Berthomme H., Monahan S.J., Parris D.S., Jacquemont B., Epstein A.L.;
"Cloning, sequencing, and functional characterization of the two subunits of the pseudorables virus DNA polymerase holoenzyme: evidence for specificity of interaction.";
J. Virol. 69:2811-2818(1995).
--- CATALYTIC ACTIVITY: N DEOXYNUCLEOSIDE TRIPHOSPHATE - N
                                                                                                                                                                                      Nature 406:477-483(2000).
EMBL; AE004322; AAF95666.1; -.
TIGR; VC2524; -.
SEQUENCE 185 AA; 20346 MW:
                                                                                                                                                                                                                                                                                                               Pseudorables virus.
Viruses; dsDNA viruses, no RNA stage; Herpesviridae;
Alnhaherpesvirinae; Varicellovirus.
                                                                                                                                                                                                                                                                           "DNA sequence of both chromosomes cholerae ";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Bacteria; Proteobacteria;
NCBI_TaxID-666;
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DNA-directed DNA_polymerase; DNA_replication; DNA-binding.
NON_TER 1048 1048
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1048 AA;
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                                                                                                     73.3%;
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Venter J.C.,
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Query Match
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""" 6; Conserv
Search completed: June 13, Job time: 722 sec
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084353;
                                                                                                                                  "Genome sequence of an obligate Chlamydia trachomatis.";
Science 282:754-759(1998).
EMBL; AE001308; AAC67944.1;
SEQUENCE 196 AA; 21978 MW; I
                                                                                                                                                                                             MEDLINE-9900809; PubMed-9784136; MEDLINE-9900809; PubMed-9784136; Stephens R.S., Kalman S., Lammel C.J., F. Mitchell W.P., Olinger L., Tatusov R.L.,
                                                                                                                                                                                                                                                      Chlamydia trachomatis.
Bacteria; Chlamydiales;
NCBI_TaxID=813;
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01-NOV-1998 (TrEMBLrel.
01-MAY-2000 (TrEMBLrel.
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                                               GGYCVQDG
                                                                                     Conservative
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75.0%;
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1: /cgn2_6/ptodata/2,
2: /cgn2_6/ptodata/2,
3: /cgn2_6/ptodata/2,
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5: /cgn2_6/ptodata/2,
6: /cgn2_6/ptodata/2,
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         June 13, 2001, 14:16:31; Search time 118.55 Seconds (without alignments) 1.296 Million cell updates/sec
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US-08-484-1588-43
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US-08-486-731-43
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US-08-624-601-8
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ALIGNMENTS	US-08-855-213-21	US-08-811-897A-21	US-08-855-213-20	US-08-811-897A-20	US-08-855-213-19	US-08-811-897A-19	US-08-855-213-18	US-08-811-897A-18	US-09-154-874-8	US-09-249-448-64	US-09-249-461-64	US-08-809-455-64	US-09-249-451-64	US-09-249-472-64	US-09-249-471-64	US-08-634-641-64	US-08-461-965-64	US-08-486-399-64
	Sequence 21, Appl	Sequence 21, Appl	Sequence 20, Appl	•	Sequence 19, Appl			Sequence 18, Appl	Sequence 8, Appli	•	•	•	Sequence 64, Appl	•	`	•	Sequence 64, Appl	•

; Sequence 8, Applicatio ; Patent No. 5882653 ; GENERAL INFORMATION: COMPUTER: IBM PC Compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/624,601 FILING DATE: 08-APR-1996 CLASSIFICATION: 424 ATTORNEY/AGENT INFORMATION: NAME: Schneller Dr., John W. REGISTRATION NUMBER: 26,031 REFERENCE/DOCKET NUMBER: BAMCZ0019P2 TELECOMMUNICATION INFORMATION: TELECHANE: (202)414-4040 MOLECULE TYPE: peptide HYPOTHETICAL: NO ANTI-SENSE: NO ORIGINAL SOURCE: ORGANISM: Vibrio chole STRAIN: El Tor 7946 IMMEDIATE SOURCE: CLONE: Zot TELEFAX: (202)414-4040 INFORMATION FOR SEQ ID NO: 8: SEQUENCE CHARACTERISTICS: APPLICANT: Kaper Dr., James B. APPLICANT: Levine Dr., Myron M. TITLE OF INVENTION: Vibrio cholerae O1 (CVD111) and non-O1 TITLE OF INVENTION: (CVD112 and CVD112RM) serogroup vaccine strains, methods TITLE OF INVENTION: of making same and products thereof COMPUTER READABLE FORM: MEDIUM TYPE: Floppy NUMBER OF SEQUENCES: 1 CORRESPONDENCE ADDRESS: LENGTH: TYPE: a COUNTRY: ZIP: 200 STREET: 1100 New CITY: Washington STATE: D.C. STRANDEDNESS: TOPOLOGY: li ADDRESSEE: Spencer & Frank STREET: 1100 New York Ave. N.W. Suite 300 East amino acid 20005 Application US/08624601 400 amino acids USA Vibrio cholerae linear Floppy disk

2

Length 400

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CURRENT APPLICATION NUMBER: US/09/311,924
CURRENT FILING DATE: 1999-05-14
EARLIER APPLICATION NUMBER: U.K. 9801409.4
EARLIER FILING DATE: 1998-05-14
NUMBER OF SEQ ID NOS: 4
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 2
SEQ ID NO 2
LENGTH: 563
TYPE: PRT
ORGANISM: Homo sapiens
US-09-311-924-2
RESULT
                                                                                     Query Match
Best Local Similarity
Strong Strongery
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US-09-311-924-2
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; ORGANISM: Homo sapiens
US-09-311-924-4
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US-09-311-924-4
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Best Local Similarity
7; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 2, Application US/09311924 Patent No. 6183990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 71.
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQ ID NO 4
LENGTH: 527
                                                                                                                                                                                                                                                                                                                                              APPLICANT: DUECKER, KLAUS NORBERT APPLICANT: CALMELS, THIERRY PAUL GERARD TITLE OF INVENTION: NOVEL COMPOUNDS FILE REFERENCE: GP-30133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 4, Application US/09311924
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQ ID NOS: 4
SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EARLIER APPLICATION NUMBER: U.K. 9801409.4 EARLIER FILING DATE: 1998-05-14
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CURRENT FILING DATE: 1999-05-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: DUECKER, KLAUS NORBERT APPLICANT: CALMELS, THIERRY PAUL GEI TITLE OF INVENTION: NOVEL COMPOUNDS FILE REFERENCE: GP-30133
                                         119 GRVCISD 125
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83 GRVCISD 89
                                                                        1 GRVCVQD 7
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                                                                                                     Conservative
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THIERRY PAUL GERARD
                                                                                                                  73.38;
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71.4%;
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                                                                                                  Score 33; DB 4;
Pred. No. 1.1e+02;
1; Mismatches 1
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Pred. No. 1.1e
1; Mismatches
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Pred. No. 1.8;
1; Mismatches
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                                                                                                                             DB 4; Length 563;
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1 GRVCVQDG 8

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Query Match
Best Local Similarity
Thes 5; Conserv
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; OTHER INFORMATION: human ZP2 protein
US-08-453-472-5
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                                                                                                                                                                                                                                                                                                                                                                                                                                                          REGISTRATION NUMBER: 36,434
REFERENCE/DOCKET NUMBER: 2026
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 758-4800
TELEFAX: (212) 751-6849
TELEX: 421792
INFORMATION FOR SEQ ID NO: 5:
SEQUENCE CHARACTERISTICS:
LENGTH: 745
TYPEN: 214
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/
FILING DATE: 26-MAR-1993
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COUNTRY: USA
ZIP: 10154
COMPUTER READABLE FORM:
MEDIUM TYPE: FLOPPY D
                                                                                                                                                                                FEATURE:
NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                MOLECULE TYPE: protein ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: US 07/364,379
FILING DATE: 12-JUN-1989
ATTORNEY/ARGENT INFORMATION:
NAME: DOROTHY R. AUTH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: US 07/930,462
FILING DATE: 20-AUG-1992
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER: IBM PC COMPATIBLE OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: WORDERFECT 5.1
CURRENT APPLICATION DATA:
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STREET: NEW YORK
CITY: NEW YORK
CTATE: NEW YORK
TISA
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CORRESPONDENCE ADDRESS:
ADDRESSEE: MORGAN & FINNEGAN
                                                                                                                                                                                                                                   CELL TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: DEAN, JURRIEN TITLE OF INVENTION: CONTITITLE OF INVENTION: BASEL TITLE OF INVENTION: POLYF
                                                                                                                                                                                                                                                                        TISSUE TYPE:
                                                                                                                                                                   LOCATION:
                                                                                                                                                                                                                  ORGANELLE
                                                                                                                                                                                                                                                                                           HAPLOTYPE:
                                                                                                                                                                                                                                                                                                        INDIVIDUAL ISOLATE:
DEVELOPMENTAL STAGE:
                                                                                                                                                                                                                                                                                                                                                               ORGANISM:
                                                                                                                                                                                                                                                                                                                                                                                                                            STRANDEDNESS:
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FILING DATE: 30-May-1995
                                                                                                                                                                                                                                                                                                                                                                                                                    TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                  amino acid
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                                                                                                                                                                                                                                                                                                                                                             human
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                                73.3%;
62.5%;
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BASED ON ALLOIMMUNIZATION WITH ZONA PELLUCIDA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US 08/038,948
           Score 33; DB 1; Length 745;
Pred. No. 1.5e+02;
1; Mismatches 2; Indels
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US-08-038-948-9
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                                                                                                            Sequence 5, Application Patent No. 5672488
GENERAL INFORMATION:
APPLICANT: DEAN, C
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Best Local Similarity
Matches 5; Conserv
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GENERAL INFORMATION:
APPLICANT: DEAN,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEFAX: (202) 822-0944
TELEX: 6714627 CUSH
INFORMATION FOR SEQ ID NO: 9:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME: SCOTT, Watson T.
REGISTRATION NUMBER: 26,581
REFERENCE/DOCKET NUMBER: 99:
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202) 861-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US 07/364,379 FILING DATE: 12-JUN-1989 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US 07/930,462 FILING DATE: 20-AUG-1992 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk
                                                      TITLE OF INVENTION: CONTRACEPTIVE VACCINE TITLE OF INVENTION: BASED ON ALLOIMMUNIZA: TITLE OF INVENTION: POLYPEPTIDES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION DATA:
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CORRESPONDENCE ADDRESS:
ADDRESSEE: MORGAN & FINNEGAN
                                    NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                   MOLECULE TYPE:
                                                                                                                                                                                                                                                             369 GELCTODG 376
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ALLOIMMUNIZATION WITH ZONA PELLUCIDA POLYPEPTIDES
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: amino acid
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                                                                                                                                                                                                                                                                                                1 GRVCVQDG 8
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                                                                                                                                                                Application US/08453952
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      745 amino acids
                                                                                                            DEAN, JURRIEN
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                                                                                                                                                                                                                                                                                                                                    Conservative
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SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                      73.3%;
                                                      BASED ON ALLOIMMUNIZATION WITH ZONA PELLUCIDA POLYPEPTIDES
                                                                                                                                                                                                                                                                                                                                    1; Mismatches
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Pred. No. 1.5e+02;
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US-08-484-993B-43

Sequence 43, Patent No. 5 GENERAL INF

INFORMATION:

5837497

Application US/08484993B

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APPLICANT:
APPLICANT:

Harris Ph.D., Jeffrey D. Hsu, Kuang T. Podolski, Joseph S.

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                                                Query Match
Best Local Similarity
Matches 5; Conserve
                                                                                                                                                 ; OTHER INFORMATION: US-08-453-952-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/038,948
FILING DATE: 26-MAR-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/930,462
FILING DATE: 20-AUG-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/364,379
APPLICATION NUMBER: US 07/364,379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER: 20
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 758-4800
                                                                                                                                                                                                                                      FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                       MOLECULE TYPE: protein ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE: 12-JUN-1989 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: FLOPPY DISK
369 GELCTQDG 376
                                                                                                                                                                                                                                                  CELL TYPE:
CELL LINE:
ORGANELLE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STREET: 345 PARK AVENUE CITY: NEW YORK STATE: NEW YORK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEFAX: (212) 751-6849
TELEX: 421792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: FILING DATE: 30-May
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WORDPERFECT 5.1
                                                                                                                                                                                   LOCATION:
IDENTIFICATION METHOD:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CLASSIFICATION:
                                                                                                                                                                                                                                                                                                      TISSUE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRANDEDNESS:
                               1 GRVCVQDG 8
                                                                                                                                                                                                                    NAME/KEY: ZP2
                                                                                                                                                                                                                                                                                                                                       DEVELOPMENTAL STAGE:
                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM:
                                                                                                                                                                                                                                                                                                                                                                                                                                         IOPOLOGY:
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                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                       human
                                                                                                                                                                                                                                                                                                                                                                                                                                    unknown
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30-May-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                     single
                                                                                 73.3%;
                                                                                                                                                                  human ZP2 protein
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                                                                               Score 33; DB 1;
Pred. No. 1.5e+02;
                                                                 Mismatches
                                                                                                Length 745;
                                                                 0,
                                                                 Gaps
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JS-08-484-993B-43
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
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                                                                                                                                                                                                                                                                                                  equence 5, Application US/08862903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                INFORMATION FOR SEQ ID NO:
                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: FLOPPY DISK
COMPUTER: IBM PC COMPATI
                                                                                                                                                                                                                        TITLE OF INVENTION: TITLE OF INVENTION:
                                                                                                                                                                                         CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                      NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TOPOLOGY: linear MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE CHARACTERISTICS:
LENGTH: 745 amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE/DOCKET NUMBER: 31
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION DATA: 08/012,990
APPLICATION NUMBER: 08/012,990
FILING DATE: 29-JAN-1993
PRIOR APPLICATION DATA: 07/973,341
APPLICATION NUMBER: 07/973,341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE: 09-NOV-1992
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                             369 GELCTODG 376
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MEDIUM TYPE: Floppy disk
                                                                                                                                          STREET: 345 PA
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                               COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                COUNTRY: USA
ZIP: 10154
                                                                                                                                                                            ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity
nes 5; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.0,
                                                                                                                                                                                                                                                                                                                                                                                                                          1 GRVCVQDG 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US/0 FILING DATE: 09-NOV-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STREET:
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APPLICATION DATA
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                                                                                                                              NEW YORK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  amino acid
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                                                                                                                                                          345 PARK AVENUE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             745 amino acids
                   WORDPERFECT 5.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             312/474-0448
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                                                                                                                                                                         MORGAN & FINNEGAN
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                                                                                                                                                                                                                                                                   JURRIEN
                                                                                                                                                                                                                     CONTRACEPTIVE VACCINE
BASED ON ALLOIMMUNIZATION WITH ZONA PELLUCIDA
POLYPEPTIDES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       73.3%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US/08/484,993B
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lower, 233
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 33;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          31745
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South Wacker
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ker Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 745;
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; IDENTIFICATION METHOD:
; OTHER INFORMATION: human ZP2 protein
US-08-862-903-5
                                                                                                                                                                                                                                            US-08-484-158B-43
                                                                                                                                                                                                                 Sequence 43, Application US/08484158B Patent No. 5976545
                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
Matches 5; Conser
                                                                                                                                                                                                     GENERAL INFORMATION:
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INFORMATION FOR SEQ ID NO:
                                                                                                           TITLE OF INVENTION:
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                               CORRESPONDENCE ADDRESS:
                                                                                                                                                                        APPLICANT:
                                                                                                                                                                                      APPLICANT:
                      STREET: 6300 Sea
CITY: Chicago
STATE: Illinois
                                                                                                                                                            APPLICANT:
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                                                                                                                                                                                                                                                                                                   369 GELCTODG 376
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ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE CHARACTERISTICS:
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               COUNTRY:
                                                                             ADDRESSEE: Marshall, O'Toole, Gerstein, Murray &
                                                                    ADDRESSEE:
                                                                                                                                                                                                                                                                                                                              1 GRVCVQDG 8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TISSUE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DEVELOPMENTAL STAGE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: amino acid
STRANDEDNESS: sir
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY: ZP2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE/DOCKET NUMBER:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US/08/862,903 FILING DATE: 30-May-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ENGTH:
'RY: United States of America 60606-6402
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                                                   6300 Sears Tower,
                                                                                                                                                    Hsu, Kuang T.
Podolski, Joseph S.
                                                                                                                                                                              Harris Ph.D., Jeffrey D.
                                                                                                                                                                                                                                                                                                                                                           Conservative
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12-JUN-1989
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26-MAR-1993
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                                                                                                                                                                                                                                                                                                                                                                       73.3%;
62.5%;
                                                                                                                                       Pharmaceutical Compositions for
                                                                                                              Immunocontraception 61
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                                                  233 South Wacker Drive
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Pred. No. 1
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1.5e+02;
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COMPUTER READABLE FORM: MEDIUM TYPE: Floppy

Floppy disk

COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE:

PatentIn

Release #1.0, Version #1.25

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
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Best Local
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CLASSIFICATION: 514
PRIOR APPLICATION DATA:
APPLICATION DATA:
APPLICATION UNMER: 08/149,223
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/012,990
FILING DATE: 29-JAN-93
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/973,341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INFORMATION FOR SEQ ID NO: 43:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/149,223
FILING DATE: 11-NOV-1993
                                                                                                 COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOCTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
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APPLICATION NUMBER: US
                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Harris Ph.D., Jeffrey D. APPLICANT: Hsu, Kuang T. APPLICANT: Podolski, Joseph S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE: 09-NOV-92
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                APPLICANT: Podolski, Joseph S.
TITLE OF INVENTION: Materials and Methods for Immunocontraception
NUMBER OF SEQUENCES: 59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MOLECULE TYPE: protein
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       369 GELCTQDG 376
                                                                                                                                                                                                                             CITY: Chicago
STATE: Illinois
                                                                  APPLICATION NUMBER: US/08/484,596A FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: amino acid
                                                                                                                                                                                                                  COUNTRY:
                                                                                                                                                                                                                                                                     STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local Similarity 62.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME: Clough, David REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                   ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE/DOCKET NUMBER:
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                                                                                                                                                                                                 'RY: United States of America 60606-6402
                                                                                                                                                                                                                                                                                                                                                                                                                                     Application US/08484596A
                                                                                                                                                                                                                                                                 E: Marshall, O'Toole, 6300 Sears Tower, 233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          745 amino acids
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       73.3%;
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Pred. No.
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South Wacker Drive
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1.5e+02;
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Best Local Similarity
""thes 5; Conserve
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 43,
                                                                                                                                                                                CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/480,150A
FILING DATE: 07-JUN-1995
CLASSIFICATION: 424
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/149,223
FILING DATE: 09-NOV-1993
APPLICATION NUMBER: 08/012,990
FILING DATE: 29-JAN-1993
PRIOR APPLICATION DATA:
APPLICATION DATA:
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INFORMATION FOR SEQ ID NO: 4
SEQUENCE CHARACTERISTICS:
LENGTH: 745 amino acids
INFORMATION FOR SEQ ID NO:
                                                                                                  APPLICATION NUMBER: 07/97
FILING DATE: 09-NOV-1992
ATTORNEY AGENT INFORMATION:
NAME: Clough, David W.
REGISTRATION NUMBER: 36,1
                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE OF INVENTION: MANUMBER OF SEQUENCES: 5
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/97
FILING DATE: 09-NOV-1992
ATTORNEY/AGENT INFORMATION:
                                                                 TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Harris Ph.I
APPLICANT: Hsu, Kuang
APPLICANT: Podolski,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TOPOLOGY: 1. MOLECULE TYPE:
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CITY: Chicago
                              TELEPHONE: 312/474-6653
TELEFAX: 312/474-0448
                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                        COUNTRY: United States of America ZIP: 60606-6402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE/DOCKET NUMBER: 31
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REGISTRATION NUMBER: :
                                                                                     REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: amino acid
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TELEFAX: 312/474-0448
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Illinois
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         E: Marshall, O'Too
6300 Sears Tower,
                                                                                                                                                                                                                                                                                                                                                                PatentIn Release #1.0, Version #1.25
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62.5%;
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                                                                                                    36,107
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Pred. No.
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                                                  Query Match
Best Local Similarity
Matches 5; Conser
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                                                                                                                                                                                                              TELEX: 25-3856
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ZIP: 60000 COMPUTER READABLE FOORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC COMPUTER: PC-DOS/MS-DOS
OPERATING SYSTEM: PC-DOS/MS-DOS
OPERATING PATENTIN Release #1.0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     quence 43, Application US/08458731
                                                                                                                                                                                   SEQUENCE CHARACTERISTICS LENGTH: 745 amino acid
                                                                                                                                          MOLECULE TYPE:
                                                                                                                                                                                                                                                      TELECOMMUNICATION INFORMATION:
TELEPHONE: 312/474-6653
                                                                                                                                                                                                                                                                                                         ATTORNEY/AGENT INFORMATION:
NAME: Clough, David W.
369 GELCTODG 376
                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Hsu, Kuang
APPLICANT: Podolski, C
TITLE OF INVENTION: Ma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TOPOLOGY: linear MOLECULE TYPE: protein
                                                                                                                                                         TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          369 GELCTQDG 376
                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: FILING DATE: 09-NO
                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: FILING DATE: 29-JA
                                                                                                                                                                                                                                         TELEFAX:
                                                                                                                                                                                                                                                                                   REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US/0 FILING DATE: 09-NOV-1993
                                                                                                                                                                                                                                                                                                                                                                                                                             CLASSIFICATION:
                                                                                                                                                                                                                                                                                               REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADDRESSEE:
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                         GRVCVQDG 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RY: United States of America 60606-6402
                                                                                                                                                       amino acid
GY: linear
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                                                                                                                                                                                   745 amino acids
                                                                                                                                                                                                                                            312,
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                                                       Conservative
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WENTION: Materials and Methods for Immunocontraception
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                                                                                                                                        protein
                                                                                                                                                                                                                                         /474-0448
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                                                                 73.3%;
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                                                                                                                                                                                                              43:
                                                                 Score 33;
Pred. No.
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Pred. No.
                                                    Mismatches
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                                                                 DB 3;
. 1.5e+02;
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RESULT 14
US-09-154-874-9
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US-08-149-223A-43
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Best Local Similarity va...
Thes 5; Conservative
                                                                                                                                                             Sequence 9, Application US/09154874 Patent No. 6054636
                                                                                             GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: FADER, GARY MICHAEL
APPLICANT: THYPHTION: ISOFLAVONE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 43, Application US/08149223A Patent No. 6027727
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME: Clough, David W.
REGISTRATION NUMBER: 36,107
REFERENCE/DOCKET NUMBER: 3174
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312/474-6653
TELEFAX: 312/474-0448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
APPLICANT: Harris
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    INFORMATION FOR SEQ ID NO:
     STREET: LUU,
CITY: WILMINGTON
CTATE: DELAWARE
CTATE: DELAWARE
                                                                             CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/9:
FILING DATE: 09-NOV-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CLASSIFICATION: 424
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE CHARACTERISTICS
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MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATTORNEY/AGENT INFORMATION:
NAME: Clough, David W.
                                                                                                                                                                                                                                                              369 GELCTQDG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Podolski, Joseph S.
TITLE OF INVENTION: Materials and Methods for Immunocontraception
                                             ADDRESSEE: E. I. DU PONT DI
STREET: 1007 MARKET STREET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US/0 FILING DATE: 09-NOV-1993
                                                                                                                                                                                                                                                                                         1 GRVCVQDG
                                                                                                                                                                                                                                                                                                                                                                                                                                        TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE: 29-JAN-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STREET: 6300 s
CITY: Chicago
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGTH:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RY: United States of America 60606-6402
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UNITED STATES OF AMERICA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                6300 Sears Tower,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Harris Ph.D., Jeffrey D.
                                                                                                                                                                                                                                                             376
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                                                            I. DU PONT DE NEMOURS
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62.5%;
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    Mismatches

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Pred. No. 1.5e+02;
                                                                                                           BIOSYNTHETIC ENZYMES
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                                                              AND COMPANY
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COMPUTER READABLE FORM: MEDIUM TYPE: DISKETTE,

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Best Local Similarity
Thes 6; Conservat
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TOPOLOGY: linear
MUECULE TYPE: protein
US-09-154-874-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-08-465-380-51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 51, Application US/08465380 Patent No. 5863894
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/931,668
FILING DATE: SEPTEMBER 17, 1997
ATTORNEY/AGENT INFORMATION:
NAME: MAJARIAN WILLIAM R.
REGISTRATION UNMBER: 41,173
REFERENCE/DOCKET NUMBER: BB-1098-A
TELECOMMUNICATION INFORMATION:
TELEPHONE: 302-924-4926
TELEPHONE: 302-973-0164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEFAX: 302-773-0164
INFORMATION FOR SEQ ID NO:
                                                                      COMPUTER: IBM Compatible
OPERATING SYSTEM: IBM P.C. DOS 5.0
SOFTWARE: Word Perfect 5.1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/465,380
FILING DATE: June 5, 1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/326,110
FILING DATE: October 18, 1994
                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
MEDIUM TYPE: storage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE CHARACTERISTICS:
LENGTH: 326 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: MICROSOFT WINDOWS 95
SOFTWARE: MICROSOFT WORD VERSION 7.0A
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/154,874
                                                                                                                                                                                                                                                                        ADDRESSEE: Lyon & Lyon
STREET: 633 West Fifth Street
STREET: Suite 4700
CITY: Los Angeles
STATE: California
COUNTRY: U.S.A.
ZIP: 90071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: George P. Vlasuk, Patric H. Stanssens, APPLICANT: Joris H.L. Mensens, Marc J. Lauwereys, APPLICANT: Yves R. Laroche, Laurent S. Jespers, APPLICANT: Yannick G.J. Gansemans, Matthew Moyle, APPLICANT: Peter W. Bergum
                                                                                                                                                                                                                                                                                                                                                                                                                    CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION: NEMATODE-EXTRACTED ANTICOAGULANT TITLE OF INVENTION: PROTEIN NUMBER OF SEQUENCES: 356
                                                                    CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CLASSIFICATION:
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75.0%;
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; MOLECULE TYPE: peptide
; MOLECULE TYPE: peptide
; ORIGINAL SOURCE:
; ORGANISM: Ancycloston
US-08-465-380-51
Search completed: June 13, 2001, 14:16:31 Job time: 492 sec
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                                                                                                               δÃ
                                                                                                                                Query Match
Best Local Similarity
6; Conserv
                                                                                                                                                                                                                                                                                                              ATTORNEY/AGENT INFORMATION:

NAME: BIGCS, SUZANNE L.

REGISTRATION NUMBER: 30,158

REFERENCE/DOCKET NUMBER: 213/268

REFERENCE/TOOKET NUMBER: 213/268

TELECOMMUNICATION INFORMATION:

TELEPAX: (213) 489-1600

TELEFAX: (213) 955-0440

TELEX: 67-3510

INFORMATION FOR SEQ ID NO: 51:

SEQUENCE CHARACTERISTICS:

LENGTH: 84 amino acids

TYPE: amino acids

TYPE: amino acids

TYPE: amino acids
                                                                                 48 GRVCVCD 54
                                                                                                               1 GRVCVQD 7
                                                                                                                                                Conservative
                                                                                                                                                                                                                                                   Ancyclostoma caninum
                                                                                                                                                               68.9%;
85.7%;
                                                                                                                                                 0;
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Pred. No.
                                                                                                                                                 Mismatches
                                                                                                                                                                 дв
36;
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                                                                                                                                                                               Length 84
                                                                                                                                                0;
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Title:
Perfect score:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Searched
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Run on:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence:
A_Geneseq_0401:*

1: /SIDS6/gcgdata/geneseq/geneseqp/AA1981.DAT:*

2: /SIDS6/gcgdata/geneseq/geneseqp/AA1981.DAT:*

3: /SIDS6/gcgdata/geneseq/geneseqp/AA1982.DAT:*

4: /SIDS6/gcgdata/geneseq/geneseqp/AA1983.DAT:*

5: /SIDS6/gcgdata/geneseq/geneseqp/AA1985.DAT:*

6: /SIDS6/gcgdata/geneseq/geneseqp/AA1985.DAT:*

7: /SIDS6/gcgdata/geneseq/geneseqp/AA1985.DAT:*

8: /SIDS6/gcgdata/geneseq/geneseqp/AA1986.DAT:*

9: /SIDS6/gcgdata/geneseq/geneseqp/AA1989.DAT:*

10: /SIDS6/gcgdata/geneseq/geneseqp/AA1980.DAT:*

11: /SIDS6/gcgdata/geneseq/geneseqp/AA1991.DAT:*

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26: /SIDS6/gcgdata/geneseq/geneseqp/AA1999.DAT:*

27: /SIDS6/gcgdata/geneseq/geneseqp/AA1999.DAT:*

28: /SIDS6/gcgdata/geneseq/geneseqp/AA1999.DAT:*

29: /SIDS6/gcgdata/geneseq/geneseqp/AA1999.DAT:*
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Maximum Match 100%
Listing first 45 summaries
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Copyright (c) 1993 - 2000 Compugen Ltd.
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

1 2 2 3 4 4 4 5 7 7 10 11	Result
3444 3444 3444 3444	Score
100.0 92.7 92.7 82.9 82.9 82.9 82.9	% Query Match
118 8 8 8 8 8 20 20 25 25	Length DB
15 15 15 15 15 15 15	BB
Y79107 Y79111 W19878 W19878 Y79105 Y79105 Y79115 Y79115 Y79119 Y79119 Y79133 R52775 R52793	SUMMARIES
Peptide antagonist Human foetal intes Murine BrE-3 immun Murine BrE-3 immun	Description

New peptide antagonist of zonulin useful as antiinflammatory agent for

WPI; 2000-205565/18

Fasano A;

03-AUG-1998;

98US-0127815.

(UYMA-) UNIV MARYLAND BALTIMORE.

45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12
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W93392	W93391	W93390	W93389	W93388	W93386	Y31382	Y31385	W71210	W76369	W80197	W81520	W35826	R96090	R96089	R91814	R70323	R51265	R39306	R38785	R14619	W93387	W35827	R39308	R38787	W76367	R96092	609	819	610	R96101	g	R96103	0
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RESULT Y79107 28-JUL-1999; Synthetic. gastrointestinal inflammation; therapy hypotensive; immunosuppressive; antiparasitic; vasotropic; Zonulin; antagonist; zonula occludens toxin receptor; blood-brain barrier; antiinflammatory; cerebroprotective; blood-brain barrier; antionogical, antiulcer; antiviral; antibacterial; cytostatic; anti-HIV; vulnerary; antiallergic; Peptide antagonist of zonulin. 05-JUN-2000 (first entry) Y79107; 17-FEB-2000 WO200007609-A1 Y79107 standard; Peptide; 8 AA. 99WO-US16683.

ALIGNMENTS

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RESULT
Y79111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    recombinant DNA techniques. The peptide antagonists are used as an antiinflammatory agents in the treatment of gastrointestinal inflammation, where they bind to the 207 receptor in the intestine intestine and yet does not physiologically modulate the opening of TJ in the CC intestine. Gastrointestinal inflammation conditions give rise to concern the intestinal permeability and the peptide is useful for treating intestinal conditions that cause protein losing enteropathy caused by infection, e.g. Clostridium difficile infection, c.g. caused by infection, e.g. Clostridium difficile infection, contestinal overgrowth, whitple's disease, diseases with collagenous colitis, inflammatory bowel disease, diseases with collagenous colitis, inflammatory bowel disease, diseases marked by carcoidosis lymphoma, mesenteric tuberculosis, and after surgical correction of congenital heart disease with Fontan's operation, collagenous disease, estimphialic gastroenteriits, and immune disease, collagenous arthout ulceration, e.g. Menetrier's disease, collagenous arthout ulceration, e.g. Menetrier's disease, and immune diseases, and alternates arthout the collagenous and immune diseases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
Matches 8; Conserv
                                               03-AUG-1998;
                                                                                            28-JUL-1999;
                                                                                                                                       17-FEB-2000
                                                                                                                                                                                     WO200007609-A1
                                                                                                                                                                                                                                  Synthetic
                                                                                                                                                                                                                                                                               Zonulin; antagonist; zonula occludens toxin receptor; blood-brain barrier; antiinflammatory; cerebroprotective; neuroprotective; dermatological; antiulcer; antiviral; antibacterial; cytostatic; anti-HIV; vulnerary; antiallergic; hypotensive; immunosuppressive; antiparasitic; vasotropic;
(UYMA-) UNIV MARYLAND BALTIMORE
                                                                                                                                                                                                                                                                   gastrointestinal inflammation; therapy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              05-JUN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Y79111 standard; Peptide; 8 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                              Peptide antagonist of zonulin.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             treating cerebral ischemia, stroke, cerebral edema, gastritis, shigeilosis, viral gastroenteritis, meningitis, encephalomyel
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  systemic lupus erythematosus or food allergies, primarily to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
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                                             98US-0127815
                                                                                          99WO-US16683
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Pred. No. 3.2
0; Mismatches
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Best Local S
Matches 7
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      Region
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                                                                                                                                                                                                                                                                                                                                                 Carcinoembryonic antigen; CEA; human; antibody; scFv; tumour marker; lung cancer; breast cancer; colon canc
                                                                                                                                                                                                                                                                                                                                                                                                                                         CEA-specific antibody CEA3 VH sequence.
                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                     adenocarcinoma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              W19878;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          mucosal erosion or ulcerations, e.g. gastritis, gastric cancer, collagenous colitis, inflammatory bowel disease, diseases marked by lymphatic obstruction, e.g. congenital intestinal lymphangiectasia, sarcoidosis lymphoma, mesenteric tuberculosis, and after surgical correction of congenital heart disease with Fontan's operation, mucosal diseases without ulceration, e.g. Menetrier's disease, coeliac disease, eosinophilic gastroenteritis, and immune diseases, coeliac disease, eosinophilic gastroenteritis, and immune diseases.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    W19878 standard;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New peptide antagonist of zonulin useful as antiinflammatory agent treating cerebral ischemia, stroke, cerebral edema, gastritis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity
nes 7; Conserv
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                                                                                                                                                                                                                                                                                                                                 lung cancer;
diagnosis.
                                                                                           /note= "complementarity determining region
50..66
/note= "complementarity determining region 99..107
                                                               /label= CDR2
                                                                                                                                                    /label= CDR]
                                                                                                                                                                                                         Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Protein; 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            92.7%;
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                 cancer; colon cancer;
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3.2e+05;
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RESULT
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Matches 7
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07-DEC-1995;
23-MAY-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A claimed specific binding member (A) comprises an hCEA specific antibody antigen binding domain that has a dissociation constant for hCEA of less than 1 x 10 -8 M, is non-cross-reactive with human liver cells, and preferentially binds to the A3-83 extracellular domain of hCEA and/or to cell-associated hCEA over hCEA over soluble hCEA. Preferred (A) include pairings of VH and VL variants. (A) is used to detect cells expressing hCEA, in vivo or in vitro, especially tumour cells for diagnosing cancer, e.g. adenocarcinoma of the colon, lung or breast.
                                                                         Zonulin; antagonist; zonula occludens toxin receptor; blood-brain barrier; antiinflammatory; cerebroprotective; neuroprotective; dermatological; antiulcer; antiviral; antibacterial; cytostatic; anti-HIV; vulnerary; antiallergic; hypotensive; immunosuppressive; antiparasitic; vasotropic; gastrointestinal inflammation; therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Specific binding members for human carcinoembryonic antigen - b to the A3-B3 extracellular domain of hCEA and are substantially non-cross-reactive with human liver cells; used for diagnosing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  region (VH) of human carcinoembryonic antigen (hCEA)-specific antibody CEA3. VH (T72126-32) and VL (T7213-35) gene sequences were obtained for anti-hCEA antibodies CEA1-CEA7 (see M19876-85) A claimed specific binding member (A) comprises an hCEA specific
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 7;
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                                                                                                                                                                                                                                                                                Peptide
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                                                                                                                                                                                                                                                                                                                                                                                                                                              Y79105 standard; Peptide; 8 AA.
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les 7; Conser
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GRVLVQPG 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     polypeptide sequence comprises the heavy chain variable
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DB; T72128.
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10
                                                                                                                                                                                                                                                                             antagonist of zonulin.
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/note- "comp
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Pred. No.
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RESULT
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Best Local S
Matches 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          binding. They can be prepared by chemical synthesis or by use of recombinant DNA techniques. The peptide antagonists are used as an antiinflammattory agents in the treatment of gastrointestinal inflammation, where they bind to the ZOT receptor in the intestine and yet does not physiologically modulate the opening of TJ in the intestine. Gastrointestinal inflammation conditions give rise to increased intestinal permeability and the peptide is useful for treating intestinal conditions that cause protein losing enteropathy caused by infection, e.g. Clostridium difficile infection, enterocolitis, shigellosis, viral gastroenteritis, parasite infestation, bacterial overgrowth, whipple's disease, diseases with mucosal erosion or ulcerations, e.g. gastritis, gastric cancer, collagenous collits, inflammator, bowel disease, diseases marked by companies of the struction of concentral intestinal lymphanications.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                correction of congenital heart disease with Fontan's operation, mucosal diseases without ulceration, e.g. Menetrier's disease, coeliac disease, eosinophilic gastroenteritis, and immune diseases e.g. systemic lupus erythematosus or food allergies, primarily to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New peptide antagonist of zonulin useful as antiinflammatory agent treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            physiologically modulate the opening of mammalian tight junctions (TJ). The peptide antagonists are based on a common motif of ZOT and human zonulins, which is believed to be critical for receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                which bind to a zonula
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 treating cerebral ischemia, stroke, shigellosis, viral gastroenteritis,
                                                                                                              25-JUL-2000
                                                                                                                                               Y84661;
                                                                                                                                                                              Y84661 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  sarcoidosis
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 1; Page 41; 69pp;
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                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                              (first
                                                                                                                                                                                                                                                                                                                                                                                                                 AA;
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                                                                                                                                                                                Protein;
                                                                                                              entry)
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87
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APC; lymphocyte

antagnonist FZI/O of

zonula

occludens

toxin

(zot) polypeptide

0

APC; lymphocyte proliferation; antigen; auto-immune disorder; immune-related disorder; immune system rejection; multiple sclerosis; organ transplantation; inflammatory disease; allergic disease;

Zot; zonula occludens toxin; zonulin; antigen presenting cell; ymphocyte proliferation; antigen; auto-immune disorder;

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RESULT
Y79115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The present sequence represents a peptide antagonist of zonula occludens CC toxin (zot) polypeptide. The specification describes a method of CC suppressing antigen presenting cell (APC) mediated lymphocyte proliferation in a mammalian host pre-exposed to a particular antigen. CC The method comprises administering to the host an effective amount of a CC zort-related immunoregulator selected from Zot (zonula occludens toxin) or CC The method can be used to down-regulate APC-mediated lymphocyte CC The method can be used to down-regulate apcomediated lymphocyte CC Inmune-related disorders, immune system rejection subsequent to tissue CC consideration in mammalian hosts suffering from auto-immune or frequency of allergic diseases. The CC autoimmune or immune related disorders include multiple sclerosis, CC disease, Sjogren's syndrome, systemic lupus erythematosus, auto-immune CC grave's disease, Addison disease, autoimmune crititis, pennicious CC anemia, vasculitis, autoimmune coagulopathies, myasthenia gravis, CC anemia, vasculitis, and scleroderma. The inflammatory or allergic disease, CC Grave's sarcoma, multiple sclerosis, inflammatory or allergic disease, CC conditions associated with mycotic, viral, parasitic, or bacterial conditions associated with mycotic, viral, parasitic, or bacterial
                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                       Query Match
Best Local (
            Y79115
                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     rheumatoid arthritis; insulin dependent diabetes mellitus; celiac disease; Sjogren's syndrome; systemic lupus erythematosus; auto-immune thyroiditis; idiopathic thrombocytopenic purpura; hemolytic anemia; Grave's disease; Addison disease; autoImmune orchitis; pernicious anemia; vasculitis; autoImmune coagulopath; polymyositis; myasthenia gravis; polyneuritis; pemphigus; rheumatic carditis; Dermatomyositis; scleroderma; asthma; psoriasis; eczematous dermatitis; Karposi's sarcoma; inflammatory bowel disease; proliferative disorder;
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standard; Peptide; 8 AA.
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                                                                                                                                                                                                                                                                       Conservative
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                                                                                                                                                                                                                                                                                          Score 34;
Pred. No.
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Вþ Qy

1 GRVLVQPG 8

Query Match Best Local Matches

Local Similarity nes 7; Conser

Conservative

0; Score Pred.

ced. No. 3.2e

.2e+05;

Length 8

0

Gaps

0;

82.9%; 87.5%;

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This present sequence is that of a peptide antagonist of zonulin CC (2), one of 25 such peptides (see Y79105-29) of the invention, CC (2), one of 25 such peptides toxin (207) receptor, yet do not composed to a zonula occludens toxin (207) receptor, yet do not (207). The peptide antagonists are based on a common motif of zon the composition of mammalian tight junctions (207). The peptide antagonists are used as an inflammatory agents in the treatment of gastrointestinal for receptor cc and yet does not physiologically modulate the opening of Ty in the cc increased intestinal permeability and the peptide is useful for cc and yet does not physiologically modulate the opening of Ty in the cc increased intestinal conditions that cause protein losing enteropathy enterocolitis, shigellosis, viral gastroenteritis, parasite correction, bacterial overgrowth, whipple's disease, diseases with collapsenous colitis, inflammatory bowel disease, diseases with correction of congenital heart disease with Fontan's observation, collais least to the collapsenous colitis, inflammatory bowel disease, diseases marked by arcoidosis lymphoma, mesenteric tuberculosis, and after surgical correction of congenital heart disease with Fontan's observation, collais, systemic lupus erythematosus or food allergies, primarily to milk.
 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New peptide antagonist of zonulin useful as antiinflammatory agent for treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 1; Page 44; 69pp; English.
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RESULT Y79119

7

Y79119 standard; Peptide;

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antibacterial; blood-brain barrier;

Zonulin;

antagonist;

zonula occludens toxin

cerebroprotective;

receptor;

Peptide antagonist of zonulin. 05-JUN-2000 (first entry)

blood-brain barrier; antiinflammatory; cerebroprotect
neuroprotective; dermatological; antiulcer; antiviral

cytostatic; anti-HIV; vulnerary; antiallergic;

87.5%;

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recombinant DNA techniques. The peptide antagonists are used as an antiinflammatory agents in the treatment of gastrointestinal inflammation, where they bind to the 20T receptor in the intestine and yet does not physiologically modulate the opening of TV in the intestine. Gastrointestinal inflammation conditions give rise to increased intestinal permeability and the peptide is useful for treating intestinal conditions that cause protein losing enteropathy caused by infection, e.g. Clostridium difficile infection, enterocolitis, shigellosis, viral gastroenteritis, parasite infestation, bacterial overgrowth, whipple's disease, diseases with
                                                                     mucosal erosion or ulcerations, e.g. gastritis, gastric cancer, collagenous colltis, inflammatory bowel disease, diseases marked by lymphatic obstruction, e.g. congenital intestinal lymphangiectasia, sarcoidosis lymphoma, mesenteric tuberculosis, and after surgical correction of congenital heart disease with Fontan's operation, mucosal diseases without ulceration, e.g. Menetrier's disease, coellac disease, eosinophilic gastroenteritis, and immune diseases, coellac disease, eosinophilic gastroenteritis, and immune diseases,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    This present sequence is that of a peptide antagonist of zonulin, corresponding to residues 8-15 of human foetal intestinal zonulin. It is one of 25 peptide antagonists (see Y79105-29) of the inventithat bind to a zonula occludens toxin (ZOT) receptor, yet do not physiologically modulate the opening of mammalian tight junctions
                                                                                                                                                                                                                                                                                                                                                                                                         (TJ). The peptide antagonists are based on a common motif of ZOT and human zonulins, which is believed to be critical for receptor binding. They can be prepared by chemical synthesis or by use of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 1; Page
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New peptide antagonist of zonulin useful as antiinflammatory agent for treating cerebral ischemia, stroke, cerebral edema, gastritis, shigeliosis, viral gastroenteritis, meningitis, encephalomyelitis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     28-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     hypotensive; immunosuppressive; antiparasitic; gastrointestinal inflammation; therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2000-205565/18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Fasano
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              03-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         17-FEB-2000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (UYMA-) UNIV
                                                         systemic lupus erythematosus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MARYLAND BALTIMORE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        69pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          English.
                                                       or food allergies,
                                                       primarily
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               invention
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Query Match

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Score

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                                                               opening mammalian tight junctions. Zonulin proteins function as

CC opening mammalian tight junctions. Zonulin proteins function as

CC physiological modulators of mammalian tight junctions. They can be used

CC of enhancing the absorption of therapeutic agents across tight

CC inctions of intestinal and nasal mucosa and across tight junctions of

CC e.g. lidocaine, adenosine, dobutamine, dopamine, epinephrine,

CC e.g. lidocaine, phentolamine, doxaparam, alfentanil, dezocin, nalbuphine,

CC uncrepinephrine, phentolamine, doxaparam, alfentanil, dezocin, nalbuphine,

CC uncrepinephrine, succinylcholine, cytarabine, mitamycin doxorubicin,

CC vincristine, vinblastine, methicillin, mezlocillin, piperacillin,

CC vincristine, vinblastine, methicillin, mezlocillin, piperacillin,

CC cetoxitin, cefenicia, cefmetazole and aztreonam, a hormone e.g.

CC interferon-alpha, interferon-beta, interferon-gamma, interleukin-1

CC interferon-alpha, interferon-beta, interferon-gamma, interleukin-1

CC interferon also be used for the production of antibodies which can

CC be used to assay for zonulin in body tissue or fluids, or in affinity-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
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Matches 7; Conserv
                                                                                                                                                                                                                                                                                                                                      recognised by both anti-tau polyclonal antibody and by anti-zonula occludens toxin (ZOT) polyclonal antibody, and is capable of reversibly opening mammalian tight junctions. Zonulin proteins function as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New purified zonulin - which is capable of reversibly opening mammalian tight junctions, used for enhancing the delivery of across intestinal and nasal mucosa and blood brain barrier
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Key
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Zonulin; mammalian tight junction; zonula occludens toxin; ZO' Vibrio cholerae; vaccine; cholera toxin; polyclonal antibody; intestinal mucosa; nasal mucosa; blood brain barrier.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     W94489;
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                                                                                                                                                                                                                                                                                                                                                                                                molecular weight of 47 kD, as determined by SDS-PAGE,
                                                                                                                                                                                                                                                                                                                                                                                                               The present invention describes pure zonulin which has an apparent
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 2; Page 45; 64pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 1999-070123/06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Fasano A;
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                                                    purification of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (UYMA-) UNIV MARYLAND BALTIMORE
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                                   zonulin.
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                                                  zonulin. The present sequence represents an N-terminal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /note= "unspecified"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      peptide; 20
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Y79133
                                             Matches
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                                                       Query Match
Best Local
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Best Local
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                                                                                                                      The present sequence is that of the N-terminal region of foetal human intestinal zonulin. The N-terminal sequences of human adult and foetal zonulins (see Y79130-36) were compared with Vibrio cholerae zonula occludens toxin (ZOT) to identify a common motif thought to be involved in receptor binding. Peptide antagonists (see Y79105-29) based on this motif are useful as antiinflammatory agents for treatment of gastrointestinal inflammation, and for treatment of conditions associated with breakdown of the blood-brain
                                                                                                Sequence
                                                                                                                                                                                                                                           New peptide antagonist of zonulin useful as antiinflammatory agent treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis
                                                                                                                                                                                                                            Example 3; Fig 6; 69pp; English.
                                                                                                                                                                                                                                                                                            WPI; 2000-205565/18
                                                                                                                                                                                                                                                                                                                                                             03-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                           WO200007609-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gastrointestinal inflammation; therapy.
                                                                                                                                                                                                                                                                                                                                        (UYMA-) UNIV
                                                                                                                                                                                                                                                                                                                                                                                  28-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Zonulin;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human foetal intestine zonulin N-terminal sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Y79133;
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  æ
           1 GRVLVQPG 8
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ggvlvqpg 15
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                                           Similarity 7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            blood-brain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      antagonist; zonula occludens toxin receptor;
lood-brain barrier; antiinflammatory;
                                                                                                 20
                                           Conservative
                                                                                                ΑA;
                                                                                                                                                                                                                                                                                                                                      MARYLAND BALTIMORE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                             Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                              /note= "unidentified residue"
                                                    82.9%;
87.5%;
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87.5%;
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                                                  Score 34; DB
Pred. No. 4:4;
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Pred. No. 4.4;
0; Mismatches
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4.4;
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                                                           Length 20;
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R52793
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Best Local Similarity
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           Mus musculus
                                   Immunoglobulin variable domain; pr
chimeric antibody; human milk fat
                                                                             Murine BrE-3 immunoglobulin heavy chain
                                                                                                                                                R52793;
                                                                                                                  24-JAN-1995
                                                                                                                                                                       R52793 standard; Protein; 25
                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Primers JO2, JO3, JO4, JO14 and VH1BACK (Q62740-062744) were all used to prepare cDNAs that encode the BrE-3 mouse Ig variable domains. The amplified V-regions lacked constant regions so as to produce less immunogenic polypeptides. A hybrid polypeptide was prepared using human constant regions with the murine V regions. The chimeric polypeptide retained the binding affinity of BrE-3 for human milk fat globule. The amino acid sequences deduced from the murine V regions.
                                                                                                                                                                                                                                                                                                                                                                                                       for human milk fat globule. The amino acid sequences deduced from the amplified VL and VH regions were compared to N-terminal sequences which had been determined directly (i.e. R52774 and R52775). The general agreement between the predicted and the determined amino acid sequences that the cloned cDNAs encode BrE-3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               13-NOV-1992;
13-NOV-1992;
28-SEP-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Chimeric human-murine polypeptide(s) specific for human mar
fat globule antigen - for imaging, diagnosing and treating
neoplasia, with less undesirable immunogenic response
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Example 11;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Immunoglobulin variable domain; primer; polymerase chain reaction; chimeric antibody; human milk fat globule; BrE-3 VL-chain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          15-NOV-1993;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Murine
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                                                                                                                                                                                                                                                                   1 GRVLVQPG 8
                                                                                                                                                                                                                                                   ggvlvqpg 15
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                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Page 32; 54pp; English.
                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                     Α,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      immunoglobulin
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92US-0977707
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                                                                                                                                                                                                                                                                                                                       82.9%;
87.5%;
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                                                                                                                                                                                                                                                                                                                       Score 34;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              heavy chain variable domain N-terminus
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                                   primer; polymerase chain reaction,
at globule; BrE-3 VL-chain.
                                                                                                                                                                                                                                                                                                       Mismatches
                                                                          variable domain N-terminus.
                                                                                                                                                                                                                                                                                                                      DB 15;
5.4;
                                 BrE-3 VL-chain
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Best Local
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                                                                                                              01-SEP-1993.
WPI; 1993-274375/35.
N-PSDB; Q48605.
                                                     (HOFF
                                                                                                                                         EP557897-A.
                                                                                                                                                             Synthetic
                                                                                                                                                                                                                 Protein able
                                                                                                                                                                                                                                                           R40924;
                                                                                                                                                                                                                                                                               R40924 standard; Protein;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New analogue peptide(s) used to develop prods.
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30-SEP-1993;
                                                                          28-FEB-1992;
                                                                                               19-FEB-1993;
                                                                                                                                                                                            Antibodies; antigen binding proteins; library; HIV;
                                                                                                                                                                                                                                      17-FEB-1994
                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
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                                                                                                                                                                                                                                                                                                                                                  GRVLVQPG 8
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                                                                                                                                                                                  Immunodeficiency Virus
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87.5%;
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RESULT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              protein. Many synthetic genes are synthesised, each containing a predetermined nucleotide region encoding the framework regions of the heavy and light chains of antibody and undetermined nucleotide regions which are random sequences. The genes are then used in the construction of vectors which are subsequently used to transform microbes. The proteins thus produced are screened for binding
            the recombinant 62K was obtd. in over 95% purity. However, C-termin processing resulted in the deletion of 9 or 23 amino acids from 62K, giving 2 related polypeptide species (R96101 and R96103). Similar
                                                                                                                                                                                                                                                                                                                                                                                                                                            HEV; enterically-transmitted non-A/non-B hepatitis virus; vaccine; diagnosis; antigen; Spodoptera frugiperda; Sf9; insect;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The synthetic gene encodes a protein corresponding to an antibody capable of binding to a specific antigen, in this case the HIV-l
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Antigen-binding proteins and corresp. constructed synthetically and used to
results were obtd. with HEV Mexico 62K antigen (see also
                                                                                                                          Claim 7; Page
                                                                                                                                                  Hepatitis E virus (HEV) antigens derived from ORF 2 -diagnostic reagents for determining HEV infection and
                                                                                                                                                                                              WPI;
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24-OCT-1994;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Page 22;
                                                                                                                                                                                                                                                                                                                                                                                                                              ; antigen;
us; capsid.
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Pred. No. 51;
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                                                                                                            R96103). Recombinant 62K represents an improved antigen, comparison to bacterial expressed proteins, for use in HE diagnostic assays, and also has excellent immunogenic pro-
                                                                                          Sequence
                                                                                                                                                                                                                                                                    Claim 8; Page 97-98; 125pp; English
                                                                                                                                                                                                                                                                                          Hepatitis E virus (HEV) antigens derived from ORF 2 - useful as diagnostic reagents for determining HEV infection and in vaccines
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24-OCT-1994;
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nes 6; Conserv
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                        Conservative
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24-OCT-1994;
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UDP-3-0-(R-3-hydro
                                                                               germ cell-less pro
                                                                                                                                                probable transketo
fimbrial adhesin p
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                                                                                                                                                                                               structural protein
                       hypothetical prote
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gene VH104B protei
Ig heavy chain V-D
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A;Residues: 1-253 <SIM>A;Residues: 1-253 <SIM>A;Cross-references: GB:AE003930; GB:AE003849; NID:g9105819; PIDN:AAF83720.1; GSPDB:GN
A;Cross-references: GB:AE003930; GB:AE003849; NID:g9105819; PIDN:AAF83720.1; Garraro, D.M.; Carrer
A;Simpson, A.J.G.; Reinach, F.C.; AA.,: Camargo, L.E.A.; Carrero, D.M.; Carrer
as-Neto, E.; Docena, C.; El-Dorry, H.; Facincani, A.P.; Ferreira, A.J.S.

submitted to GenBank, June 2000
A;Authors: Ferreira, A.M.; Madeira, H.M.F.; Marino, C.L.; Marques, M.C.; E.C.; Miyaki, C., F.G.; Nunes, L.R.; Oliveira, M.A.; Menck, C.F.M.; Miracca, E.C.; Miyaki, C., F.G.; Nunes, L.R.; Oliveira, M.A.; de Oliveira, M.C.; de Oliveira, R.C.; Palmieri,
Rodrigues, V.; Rosa, A.J. de M.; de Rosa Jr., V.E.; de Sa, R.G.; Santelli, R.V.; Sawa
A;Authors: da Silva, A.C.R.; da Silva, F.R.; da Silva, A.M.; Silva Jr., W.A.; da Silva
M.; Tsuhako, M.H.; Vallada, H.; Van Sluys, M.A.; Verjovski-Almeida, S.; Vettore, A.L.
A;Reference number: A59328
A;Contents: annotation
translation elongation factor EF-Tu - Micrococcus luteus C.Species: Micrococcus luteus, Micrococcus lysodeikticus C.Date: 05-Oct-1988 #sequence_revision 05-Oct-1988 #text_change 21-Jul-2000 C.Accession: D26956 R.Ohama, T.; Yamao, F.; Muto, A.; Osawa, S. J. Bacteriol. 169, 4770-4777, 1987
                                                                                                                                                                                                                        RESULT
D26956
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R;anonymous, The Xylella fastidiosa Consortium
Nature 406, 151-157, 2000
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A;Note: for a complete list of authors see reference number A59328 be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ubiquinol cytochrome C oxidoreductase, cytochrome C1 subunit xF0910 [imported] - Xyle C; Species: Xylella fastidiosa
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Matches 7
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187 GLVLVQPG 194
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87
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Structural protein 2 precursor - hepatitis E virus (strain Mexico)
(;Species: hepatitis E virus
C;Date: 17-Feb-1994 *sequence_revision 17-Feb-1994 *text_change 23-Jul-1999
C;Accession: B44212
R;Huang, C.C.; Nguyen, D.; Fernandez, J.; Yun, K.Y.; Fry, K.E.; Bradley, D.W.;
Virology 191, 550-558, 1992
A;Title: Molecular cloning and sequencing of the Mexico isolate of hepatitis E
A;Reference number: A44212; MUID:93079857
A;Molecule type: genomic RNA
A;Residues: 1-659 <HUA>
                                                                                                                                                                                                                                                                                        RESULT
B44212
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F:9-122/Domain: response regulator homology <RRH>
F:59/Binding site: phosphate (Asp) (covalent) #status predicted
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A;Residues: 1-403 <COL>
A;Cross-references: GB:AE001238; GB:AE000520;
A;Experimental source: strain Nichols
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A;Recession: D26556
A;Molecule type: DNA
A;Residues: 1-396 <OHA>
A;Residues: 1-396 <OHA>
A;Residues: 1-396 <OHA>
A;Residues: GB:M17788; NID:9149850; PIDN:AAA25320.1; PID:9149854
C;Coss-references: GB:M17788; NID:9149850; PIDN:AAA25320.1; PID:9149854
C;Superfamily: translated the codon GCG for residue 331 as Pro
C;Keywords: GTP binding; P-loop; Protein biosynthesis
C;Keywords: GTP binding; P-loop; Protein biosynthesis
F;13-141/Domain: translation elongation factor Tu homology
F;138-141/Region: nucleotide-binding motif A (P-loop)
F;138-141/Region: GTP-binding NKXD motif
F;156-178/Region: GTP-binding SAK/L motif
F;25,26,64,138,139,141,176/Binding site: Mg-GTP (Lys, Thr, Asn, Lys, Asp, Ser) #sta
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A;Accession: E71300
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75.0%;
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1; Mismatches
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Pred. No.
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27;
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A;Molecule type: DNA
A;Residues: 1-1400 <COL>
A;COSS-references: GB:292669; GB:AL123456; NID:g3242271; PIDN:CAB07017
A;Experimental source: strain H37Rv
C;Genetics:
C;Genetics:
A;Gene: Rv0236c
C;Superfamily: Mycobacterium leprae probable integral membrane protein
                                                                                                                                                                                                                                                                                    hypothetical protein Rv0236c - Mycobacterium tuberculosis (strain H37RV) C;Species: Mycobacterium tuberculosis C;Species: Mycobacterium tuberculosis C;Accession: B70363 #sequence_revision 17-Jul-1998 #text_change 28-Jul-2000 R;Cole, S.T.; Brosch, R.; Parkhill, J.; Garnier, T.; Churcher, C.; Harris, D.; Connoor, R.; Davies, R.; Devlin, K.; Feltwell, T.; Gentles, S.; Hamlin, N.; Rajandream, M.A.; Rogers, J.; Rutter, S.; Seeger, K.; Skelton, S.; Squares, (Nature 393, 537-544, 1998
                                                                                                                                                                             A:Status: preliminary; nucleic acid sequence
                                                                                                                                                                                                          A:Authors: Sqares, R.; Sulston, J.E.; Taylor, K.; Whitehead, S.; Barrell, B.G. A;Title: Deciphering the biology of Mycobacterium tuberculosis from the comple A; Reference number: A70500; MUID:98295987
A; Accession: B70963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Molecule type: genomic RNA
A;Residues; 1-660 <TAM>
A;Residues; 1-660 <TAM>
A;Cross-references: GB:M73218; NID:g330023; PIDN:AAA45736.1; PID:g330026
A;Note: the authors translated the codon CGC for residue 2 as Ala
C;Superfamily: hepatitis E virus structural protein 2
C;Keywords: structural protein
F;1-22/Domain: signal sequence #status predicted <SIG>
F;23-660/Product: structural protein 2 #status predicted <SP2>
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A:Title: Hepatitis E virus (HEV): molecular cloning A:Reference number: A40778; MUID:92024067
A:Accession: C40778
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85.7%;
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Pred. No.
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Mismatches
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Local

Similarity 87.97; Conservative

82.9%;

Score 34; DB Pred. No. 98; 0; Mismatches

DB 2;

Length 1400;

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Indels

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Gaps

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454

GRVLVQPG 8
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GRVLVVPG 461

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A;Experimental Source: strain 9a5c

A;Experimental Source: strain 9a5c

R;Simpson, A,J.G.; Reinach, F.C.; Arruda, P.; Abreu, F.A.; Acencio, M.; Alvarenga, R.; J
Briones, M.R.S.; Bueno, M.R.P.; Camargo, A.A.; Camargo, L.E.A.; Carraro, D.M.; Carrer, I
Briones, M.R.S.; Bueno, M.R.P.; Camargo, A.A.; Camargo, L.E.A.; Carraro, D.M.; Carrer, I
Briones, Docena, C.; El-Dorry, H.; Facincani, A.P.; Ferreira, A.J.S.

submitted to GenBank, June 2000

A;Authors: Ferreira, V.C.A.; Ferro, J.A.; Fraga, J.S.; Franca, S.C.; Franco, M.C.; Frohr
J.D.; Junqueira, M.L.; Kemper, E.L.; Kitajima, J.P.; Krieger, J.E.; Kuramae, E.E.; Laigy
chado, M.A.; Madeira, M.L.; Kemper, E.L.; Kitajima, J.P.; Krieger, J.E.; Marques, M.V.; Martins, I
A;Authors: Martins, E.M.F.; Matsukuma, A.Y.; Menck, C.F.M.; Miracca, E.C.; Miyaki, C.Y.

F.G.; Nunes, L.R.; Oliveira, M.A.; de Oliveira, M.C.; de Oliveira, R.C.; Palmiert, D.J.

R;Authors: da Silva, A.C.R.; da Silva, F.R.; da Silva, A.M.; Silva J.T., W.A.; da Silvei,
M.S.; Santelli, R.V.; Sawasal
A;Authors: da Silva, A.C.R.; da Silva, A.M.; Silva J.T., W.A.; da Silvei,
M.S.; Santelli, R.V.; Sawasal
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R;Parkhill, J.; Barrell, B.G.; Rajandream, M.A. submitted to the EMBL Data Library, April 1998
A;Reference number: Z2863
A;Accession: T44872
A;Accession: T44872
A;Status: preliminary; translated from GB/EMBL/DDBJ - A;Molecule type: DNA
A;Residues: 1-1440 <PAR>
A;Cross-references: EMBL:AL022486; PIDN:CAA18562.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Accession: B82694
A;Status: preliminary
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-267 <SIM>
A;Cross-references: GB:AE003966; GB:AE003849; NID:g9106327; PIDN:AAF84150.1; GSPDB:GN00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Title: The genome sequence of the plant pathogen Xylella fastidiosa. A;Reference number: A82515; MUID:20365717
A;Note: for a complete list of authors see reference number A59328 below
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                                                                                                                                                                                                                                                                        M.; Tsuhako, M.H.; Vallada, H.; Van Sluys, M.A.;
A; Reference number: A59328
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6; Conserv
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Pred.
                                  Score 33;
Pred. No.
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le+02;
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29;
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                                                           Length 267;
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C:Date: 23-Jul-1999 #sequence_revision 23-Jul-1999 #text_change 23-Jul-1999
C:Accession: T12497
R:Poustka, A.; Klein, M.; Mewes, H.W.; Gassenhuber, J.; Wiemann, S. submitted to the Protein Sequence Database, June 1999
A:Reference number: Z17525
                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
Catches 6; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                               A; Experimental source: strain C; Genetics: A; Gene: APE0583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     awa, H.; Takamiya, M.; Masuda, S.; Funahashi, T.; Tanaka, T.; Kudoh, Y.; Yamazaki, J. DNA Res. 6, 83-101, 1999
A;Title: Complete genome sequence of an aerobic hyper-thermophilic Crenarchaeon, Aero A;Reference number: A72450; MUID:99310339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C:Species: Aeropyrum pernix
C:Date: 20-Aug-1999 #sequence_revision 20-Aug-1999 #text_change 20-Aug-1999
C:Accession: G72643
  R;anonymous, The Xylella fastidiosa Consortium of the Organization for Nucleotide Nature 406, 151-157, 2000 A;Title: The genome sequence of the plant pathogen Xylella fastidiosa.
                                                               C;Species: Xylella fastidiosa
C;Date: 18-Aug-2000 #sequence_revision
C;Accession: E82850
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A; Residues: 1-322 <KAW>
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A; Residues: 1-321 < POU>
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                                                             C; Accession:
                                                                                                                        fimbrial adhesin precursor XF0078 [imported] - Xylella fastidiosa (strain 9a5c)
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                                                                                                                                                                                                                                189 GEVLVEPG
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, S.; Funahashi, T.; Tanaka,
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plant pathogen Xylella fastidiosa
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                                                                                20-Aug-2000 #text_change 20-Aug-2000
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T.; Kudoh, Y
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A;Genetic code: SGC3
A;Genetic code: SGC3
C;Superfamily: translation elongation factor Tu; translation elongation
C:Superfamily: translation elongation factor Tu; translation elongation
C:Superfamily: translation elongation factor Tu; translation elongation
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                                                                                                                                                                                                                                                                                                                      A:Gene: tuf; UU522
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submitted to GenBank, June 2000

Aluthors: Ferreira, V.C.A.; Ferro, J.A.; Fraga, J.S.; Franca, S.C.; Franco, M.C.; Froh J. J., Junqueira, M.L.; Kemper, E.L.; Kitajima, J.P.; Krieger, J.E.; Kuramae, E.E.; Laig, Chado, M.A.; Madeira, A.M.B.N.; Madeira, H.M.F.; Marino, C.L.; Marques, M.V.; Martins, E.M.F.; Madeira, H.M.F.; Marino, C.L.; Marques, M.V.; Martins, J. M.A.; Martins, E.M.F.; Matsukuma, A.Y.; Menck, C.F.M.; Miracca, E.C.; Miyaki, C.Y., F.G.; Nunes, L.R.; Oliveira, M.J.; de Oliveira, M.C.; de Oliveira, R.C.; Palmieri, D. Rodrigues, V.; Rosa, A.J. de M.; de Rosa Jr., V.E.; de Sa, R.G.; Santelli, R.V.; Sawasa, A.Authors: da Silva, A.C.R.; da Silva, F.R.; da Silva, A.M.; Silva Jr., W.A.; da Silva, Tsuhako, M.H.; Vallada, H.; Van Sluys, M.A.; Verjovski-Almeida, S.; Vettore, A.L.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Description: The complete sequence of Ureaplasma urealyticum: A;Reference number: A82870
A;Accession: F82879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Cross-references: EMBL:Z34275; NID:g498790; PIDN:CAA84029.1; PID:g498791 R;Glass, J.I.; Lefkowitz, E.J.; Glass, J.S.; Heiner, C.R.; Chen, E.Y.; Cassubmitted to GenBank, February 2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                translation elongation factor tu (EF-tu) UU522 [similarity] - Ureaplasma urealyticum C;Species: Ureaplasma urealyticum C;Date: 27-Apr-1996 #sequence_revision 13-Mar-1997 #text_change 02-Sep-2000 C;Accession: S62726; F82879
                                                                                                                                                                                                                                                                                                                                                                                                                         A; Molecule type: DNA
A; Residues: 1-394 <GLA>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Molecule type: DNA
A; Residues: 1-394 <KAM>
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R;Kamla, V.
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A; Residues: 1-354 <S
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                                                                                                                                        :13-139/Domain: translation elongation factor Tu homology
:19-26/Region: nucleotide-binding motif A (P-loop)
:136-139/Region: GTP-binding NKXD motif
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of authors see reference number A59328
              Score 33; DB
Pred. No. 43;
2; Mismatches
                   2,
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A;Gene: tufA2
C;Superfamily: translation elongation factor Tu;
C;Keywords: GTP binding; P-loop
E;13-143/Domain: translation elongation factor Tu
                                                                                                                                                                                                                  A; Molecule type: DNA
A; Residues: 1-405 < AOF>
A; Cross-references: GB:AE000763; NID:g2984178;
A; Experimental source: strain VF5
                                                                                                                                                                                                                                                                                            translation elongation factor EF-Tu - Aquifex aeolicus c;Species: Aquifex aeolicus C;Date: 08-May-1998 #sequence_revision 08-May-1998 #text_change C;Accession: G70465 R;Deckert, G.; Warren, P.V.; Gaasterland, T.; Young, W.G.; Lenox
                                                                                                              F:13-143/Domain: translation elongation factor Tu homology <ETU> F:19-26/Region: nucleotide-binding motif A (P-loop)
                                                                                                                                                                                                                                                                                   A; Status: preliminary; nucleic acid sequence
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F;19-26/Region: nucleotide-binding motif A
F:140-143/Region: GTP-binding NKXD motif
F:178-180/Region: GTP-binding SAK/L motif
F:25,26,66,140,141,143,178/Binding site: Mg
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A;Cross-references: GB:AE000669; NID:92982762; PIDN:AAC06403.1;
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B;Accession: B70300
A;Status
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C:Date: 08-May-1998 #sequence_revision 08-May-1998 #text_change 26-Aug-1999
C:Accession: B70300
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A; Residues: 1-405 <A
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MUID:98196666
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Db 300 GQVLAQRG 307

RESULT

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GENERAL (A CANDROGALDEANS FLIAIALUS
C:Deles: No-Sep-1399 sequence_revision 10-Sep-1399 stext_Change 21-Jul-2000
C:Accession: GENERAL (A CANDROGALDEANS A) F.: White, 0: Melson, K.E.: Metchum, K.A.; Dodsor (Allent, M.); D.; Clayon, R.A.; Tomb, J.F.; White, 0: Melson, K.E.: Metchum, K.A.; Dodsor (Allent, M.); D.; Oscoben, M.; Steden, G.G.; Gill, S.; Kirnass, E.F.;
Gladek, N.; Zho, D.; Oscobenk, M.; Goodyne, J.D.; Melamn, J.F.; McLonald, L.
A:Authors: Utcarback, T.; Cocdyne, J.D.; Welman, J.F.; McLonald, L.
A:Authors: Utcarback, T.; Cocdyne, J.D.; Welman, J.F.; McLonald, L.
A:Authors: Utcarback, T.; Cocdyne, J.D.; Welman, J.F.; McLonald, L.
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A:Authors: Utcarback, T.; Cocdyne, J.; Artiach, P.; K.; McLonald, L.
A:Accession: GENERAL (A CANDROGAL)
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Minimum DB
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    Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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  June 13, 2001, 14:21:39; Search time 74.44 Seconds (without alignments) 3.681 Million cell updates/sec
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GLK1_MOUSE
TERT_MOUSE
TERT_AQUPY
Y055_ARCFU
LCAT_ARBIT
HGAT_ARBIT
HGAT_ARBIT
HGCL1_DROME
EFTU_CORGL
EFTU_CORGL
EFTU_BRELN
YMJ2_CAEEL
PYR1_HUMAN
YMJ2_CAEEL
PYR1_HUMAN
YMJ2_CAEEL
PYR1_MESAU
CNS2C_HUMAN
CNS2C_HUMAN
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STRD_STRGR
ARRH_HELVI
PATB_BACSU
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Best Local Similarity
Matches 6; Conser
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1 GRVLVQPG |:|||:||

Conservative

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Score 34; DB Pred. No. 9.1; 2; Mismatches

DB 1;

Length 396; Indels

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083639;
30-MAY-2000
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                                                                                                                                                                                                                                                                                                                                                                                                InterPro;
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Bacteria; Spirochaetales;
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30-MAY-2000 (Rel. 39, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
PROTEIN-GLUTAMATE METHYLESTERASE (EC 3.1.1.61).
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SUBCELLULAR LOCATION: CYTOPLASMIC.
DOMAIN: THE N-TERMINAL REGULATORY DOMAIN INHIBITS THE ACTIVIT
THE C-TERMINAL EFFECTOR DOMAIN.
THE C-TERMINAL EFFECTOR DOMAIN.
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INHIBITORY ACTIVITY OF THE N-TERMINAL DOMAIN (BY SIMILARITY).
SIMILARITY: IN THE N-TERMINAL SECTION: BELONGS TO THE RESPONS
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PF01339; CheB_methylest; 1.
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              Similarity 6; Conserv
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              Conservative
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       Score 34; DB
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E VIRUS (HEV).";
E VIRUS (HEV).";
VIROLOGY 191:550-558(1992).
-!- FUNCTION: CONTAINS A HIGH
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                                                                                   Huang C.C., Nguyen D., Fernandez J., Bradley D.W., Tam A.W., Reyes G.R.,
                                                                                                                                             Hepatitis E virus (strain Mexico) (HEV): Viruses; ssRNA positive strand viruses, NCBI_TaxID=31768;
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01-OCT-1993 (Rel.
01-FEB-1994 (Rel.
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MEDLINE-92261377; Pub
Uchida T., Suzuki K.,
Wang C.-K., Shikata T
                                                                         "Molecular cloning and
                                                                                                             MEDLINE=93079857; PubMed=1448913;
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STRUCTURAL PROTEIN 2 PRECURSOR.
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STRUCTURAL PROTEIN 2 (FRAGMENT).
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ta T., Ichikawa |
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O1-DEC-1992 (Rel. 24, Created)
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STRUCTURAL PROTEIN 2 PRECURSOR (ORP2).
STRUCTURAL PROTEIN (Strain Burms) (HEV).
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SEQUENCE
                                                                                                                                                                                                                                                                                  MEDLINE-92024067; PubMed-1926770; Tam A.W., Smith M.M., Guerra M.E., Huang C.-C., Fry K.E., Reyes G.R.; "Hepatitis E virus (HEV): molecular cloning and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 between the Swiss Institute of Bioinformatics and the E the European Bioinformatics Institute. There are no rest use by non-profit institutions as long as its content modified and this statement is not removed. Usage by an entitles requires a license agreement (See http://www.isborsend an email to license@isb-sib.ch).
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RESULT 7
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Best Local
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SIGNAL
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SEQUENCE
                                                                                        TSATEV S.A., Emerson S.U., Reyes G.R., TSATEVA T.S., Legters L.J., Malik I.A., Iqbal M., Purcell R.H.;

"Characterization of a prototype strain of hepatitis E virus.";

Proc. Natl. Acad. Sci. U.S.A. 89:559-563(1992).

-1- FUNCTION: CONTAINS A HIGH BASIC AMINO ACID CONTENT SUGGESTING THAT IT MAY BE INVOLVED IN THE ENCAPSIDATION OF THE GENOMIC RNJ. BY EFFECTIVELY NEUTRALIZING THE NEGATIVELY CHARGED RNA.
                                                                                                                                                                                                                                                                01-FEB-1994 (Rel. 28, Created)
01-FEB-1994 (Rel. 28, Last sequence update)
01-FEB-1994 (Rel. 28, Last annotation update)
STRUCTURAL PROTEIN 2 PRECURSOR (ORF2).
Hepatitis E virus (strain Pakistan) (HEV).
Viruses; ssRNA positive-strand viruses, no DN
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the European Bioinformatics Institute
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                                                                                                                                                                                                     SEQUENCE FROM N.A. MEDLINE-92115700; PubMed-1731327;
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P33426;
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Aye T.T., Uchida T., Ma
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CCBI_TaxID=31769;
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InterPro; IPR000483; ...
InterPro; IPR001611; ...
InterPro; IPR003006; ...
Pfam; PF00047; 1g; 1.
Pfam; PF00060; LRR; 9.
Pfam; PF01462; LRRNT; 1.
PFam; PF01463; LRRCT; 1.
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DOMAIN
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Leucine-rich
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                                                                                                                                                                                                                                                                                                                              Oncogene 16:2997-3002(1998).

1. SUBCELLULAR LOCATION: TYPE I MEMBRANE PROTEIN (POTENTIAL).

1. TISSUE SPECIFICITY: OVERAMPLIFIED IN MALIGNANT GLIOMAS.

1. SIMILARITY: CONTAINS 11 LEUCINE-RICH REPEATS (LRR).

1. SIMILARITY: CONTAINS 1 IMMUNOGLOBULIN-LIKE C2-TYPE DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                MEDINE-93324709; PubMed-9662332;
MEDINE-93324709; PubMed-9662332;
Malfoy B., Almeida A., Zhu X.X., Vogt N., Tyagi R., Muleris M.,
Dutrillaux A.-M., Dutrillaux B., Ross D., Hanash S.;
"GAC1, a new member of the leucine-rich repeat superfamily on
chromosome band 1q32.1, is amplified and overexpressed in malignant
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Mammalia; Eutheria;
NCBI_TaxID=9606;
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85.7%;
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annotation update)
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 CYTOPLASMIC (POTENTIAL)
               GLIOMA AMPLIFIED ON CHROMO EXTRACELLULAR (POTENTIAL).
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RESULT 9
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          Sommer B., Koehler M., Sprengel R., Seeburg P.H.;

"RNA editing in brain controls a determinant of ion flow in
glutamate-gated channels.";

Cell 67:11-19(1991).

Cell 67:11-19(1991).

Cell 67:11-19(1991).

THOUTION: L-GUITAMATE ACTS AS AN EXCITATORY NEUROTRANSMITTER PANY SYNAPSES IN THE CENTRAL NERVOUS SYSTEM. THE POSTSYNAPTIC ACTIONS OF GLU ARE MEDIATED BY A VARIETY OF RECEPTORS THAT ARE NAMED ACCORDING TO THEIR SELECTIVE AGONISTS. MAY BE INVOLVED ITHE TRANSMISSION OF LICHT INFORMATION FROM THE RETINA TO THE
HYPOTHALAMUS (BY SIMILARITY).
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Q60934;
15-JUL-1998
15-JUL-1998
01-OCT-2000
                                                                                                           SEQUENCE OF 606-622 FROM N.A., AND MEDLINE=92005683; PubMed=1717158;
                                                                                                                                       MEDIINE=96312506; PubMed=8700852;
Herb A., Higuchi M., Sprengel R., Seeburg P.H.;
"Q/R site editing in kainate receptor GluR5 and Grequires distant intronic sequences.";
Proc. Natl. Acad. Sci. U.S.A. 93:1875-1880(1996).
                                                                                                                                                                                                                                     Gregor P., O'Hara B.F., Yang )
"Expression and novel subunit
GluR5 and GluR6.";
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CARBOHYD
SEQUENCE
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MEDLINE=94083547; PubMed=826
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Mammalia; Eutheria;
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(Rel. 40, Last annotation update)
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                                                                                                                                                                                                                                                                                                              Muridae;
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                           RECEPTORS THAT ARE
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:: Murinae; Mus
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(POTENTIAL)
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FUNCTIONAL
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Best Local
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070372; 035432;

30-MAY-2000 (Rel.

30-MAY-2000 (Rel.

30-MAY-2000 (Rel.
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CARBOHYD
SEQUENCE FROM N.A. MEDLINE~98241176; Greenberg R.A., Al
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; X66118; -; NOT_ANNOTATED_CDS.
EMBL; U31444; AAA85222.1; -.
MGD; MGI;95814, Grik1.
InterPro; IPR001320;
InterPro; IPR001828; -..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MOUSE
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                                                                                                           Eukaryota; Metazoa;
Mammalia; Eutheria;
NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               the
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                                                                                                                                                                                                     Mus musculus (Mouse)
                                                                                                                                                                                                                                                              SUBUNIT).
                                                                                                                                                                                                                                                                                           TELOMERASE
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SUBCELULAR LOCATION: INVEGRAL MEMBRANE PROTEIN.

ALTERNATIVE PRODUCTS: AT LEAST 2 ISOFORMS ARE PRODUCED BY ALTERNATIVE PROTEING.

TISSUE SPECIFICITY: MOST ABUNDANT IN THE CEREBELLUM. ALSO PRESENT IN THE SUPRACHIASMATIC NUCLEI OF THE HYPOTHALAMUS.

SIMILARITY: BELONGS TO THE LIGAND-GATED IONIC CHANNELS FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ween the Swiss Institute of Bioinf
European Bioinformatics Institute
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6; Conser
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836
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1 30 POTE

31 836 GLU7

32 561 EXTI

562 582 POTE

72 742 N-L

74 74 N-L

276 276 N-L

276 276 N-L

276 276 N-L

277 N-L

277
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  Allsopp
PubMed=9582020;
Llsopp R.C., Chin L.,
                                                                                                                                                                                                                                                                                      39, Created)
39, Last sequence update)
39, Last annotation update)
E TRANSCRIPTASE (EC 2.7.7.-)
                                                                                                                                                  Chordata;
Rodentia;
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75.0%;
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Pred.
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                                                                                                                                         Craniata; Ver
Sciurognathi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -> R (IN RNA EDI'
A8B6EC4B44FFDBFF
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                                                                                                                                                                                                                                                                                                                                                                                                                                        1122
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  Morin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    channel; Glycoprotein; Signal; ative splicing; RNA editing.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         There are no restrictions on
                                                                                                                                            Vertebrata;
thi; Muridae;
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DBFF CRC64;
  G.B.,
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                                                                                                                                                                                                                                                                                           (TELOMERASE
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  DePinho
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                                                                                                                                               Murinae;
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     R.A.;
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                                                                                                                                                                                                                                   RESULT
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Best Local
Thesis (1994), Heir [2] SEQUENCE FROM N.A. STRAIN-SEROVAR 3;
                                                                                                                                                           P50068;
01-OCT-1996 (
01-OCT-1996 (
01-OCT-2000
                                                                                                                                                                                                                                                                                                                                                                          CONFLICT
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       homolog.";

Submitted (OCT-1997) to the EMBL/GenBank/DDBJ databases.

-!- FUNCTION: TELOMERASE IS A RIBONUCLEOPROTEIN ENZYME ESS.

THE REPLICATION OF CHROMOSOME TERMINI IN MOST BUKARYOT ELLOMERES. IT IS A REVERSE TRANSCRIPTASE THE SIMPLE SEQUENCE REPEATS TO CHROMOSOME ENDS BY COPYING SEQUENCE WITHIN THE RNA COMPONENT OF THE ENZYME.
                                                                                                                                                                                                                                                                                                                                                                                                                               EMBL; AF051911; AAC09323.1; -.
EMBL; AF073311; AAC34821.1; -.
EMBL; AF022235; AAB84200.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            use by non-profit institutions as long modified and this statement is not removed. entitles requires a license agreement (See or send an email to license@isb-sib.ch)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "Expression of mouse telomerase reverse transcriptase during development, differentiation and proliferation."; oncogene 16:1723-1730(1998).
                                                                                                                                       ELONGATION FACTOR TUF OR UU522.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              adult tissues.";
                                                                                                                            Ureaplasma
                                                                                                                                                                                                            EFTU_UREPA
                                                                                                                                                                                                                                                                                                                                                                                                                        MGD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE-98393668;
Martin-Rivera L.,
                                                        STRAIN-ATCC
                                                                    SEQUENCE
                                                                                          Mycoplasmataceae;
NCBI_TaxID=134821;
                                                                                                                Bacteria; Firmicutes;
                                                                                                                                                                                                                                                                                                                                                                                                DNA-binding.
                                                                                                                                                                                                                                                                                                                                                                                                           Transferase; RNA-directed
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                                                                                                                                                                                                                                                                                         1 GRVLVQPG
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SIMILARITY: BELONGS TO THE REVERSE TRANSCRIPTASE FAMILY.
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                                                        FROM N.A.
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1122 AA;
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firmicutes; Bacillus/Clostridium group;
                                                                                                                                                              (Rel.
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                                   Heinrich-Heine
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. 34, Last sequ
. 40, Last anno
R TU (EF-TU).
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Herrera E., Albar J.P.,
'~lomerase catalytic
                                                                                                      Ureaplasma
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127977 MW;
                                                          SEROVAR
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87
                                                                                                                                                             Last sequence update)
Last annotation update)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          musculus
                                                                                                                                                                                                                                                                                                                                                                                                           DNA polymerase; Telomere;
                                                        14;
                                                                                                                                                                                                                                                                                                                 0,
                                                                                                                                                                                                                                                                                                                            Score
Pred.
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                                 University
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                                                                                                                                                                                                                                                                                                                 Mismatches
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                                                                                                                                                                                                                                                                                                                             34;
No.
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25;
                                 / Duesseldorf,
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subunit
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    Mollicutes;

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PTASE THAT A
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Best Local S
Matches
                                                                                                                                                                                                                                                                                                                        MEDLINE-98196666; PubMed-9537320;
Deckert G., Warren P.V., Gaasterland T., Young W.G.,
Graham D.E., Overbeek R., Snead M.A., Keller M., Aujt
Feldman R.A., Short J.M., Olson G.J., Swanson R.V.;
"The complete genome of the hyperthermophilic bacteri
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EFTU_AQUAE
066429; 0677!
15-DEC-1998
15-DEC-1998
01-OCT-2000
                                                                                                                                                                                                                                                   aeolicus.";
Nature 392:353-358(1998)
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NP_BIND
SEQUENCE
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Aquifex aeolicus.
Bacteria; Aquificales; Aquificaceae; Aquifex
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ELONGATION FACTOR TU (EF-TU).
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Nature 407:757-762(2000).
-i- FUNCTION: THIS PROTEIN PROMOTES
AMINOACYL-TRNA TO THE A-SITE OF
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EMBL; AE002151; AAF30935.1;
HSSP; P02990; LETU.
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-!- SUBCELLULAR LOCATION: (
-!- SIMILARITY: BELONGS TO EF-TU/EF-1A SUBFAMILY.
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    SUBUNIT: MONOMER (BY SIMILARITY)
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bacterium Aquifex
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050293;
15-DEC-1998
15-DEC-1998
01-OCT-2000
                           entities requires a license agreement (S or send an email to license@isb-sib.ch).
                                                                  This SWISS-PROT entry is copyright. It is productive the Swiss Institute of Bioinformatics between the Swiss Institute of Bioinformatics the European Bioinformatics Institute. There the European Bioinformatics Institute.
                                                                                                                                                                       MEDILINE-98248215; PubMed-9588802;
Ludwig W., Strunk O., Klugbauer S., Klugba
Neumaler J., Bachleitner M., Schleifer K.H
"Bacterial phylogeny based on comparative
"Bacterial phylogeny based on comparative
Electrophoresis 19:554-566(1998).
-1- FUNCTION: THIS PROTEIN PROMOTES THE GT
AMINOACYL-TRNA TO THE A-SITE OF RIBOSO
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_AQUPY
        EMBL; Y15787; CAA75781.1;
                                                  use by non-profit institutions as long modified and this statement is not removed.
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NP_BIND 19

NP_BIND 85

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VARIANT 140

VARIANT 294
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PROSITE; PS00301; EFACTOR_GTP;
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EMBL; AE000763;
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                                                                                                                           SUBUNIT: MONOMER (BY SIMILARITY).
SUBCELLULAR LOCATION: CYTOPLASMIC.
SIMILARITY: BELONGS TO THE GTP-BINDING
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                                                                                                                     EF-TU/EF-1A SUBFAMILY.
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fer K.H.;
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PRINTS;
                                                                      Hypothetical SEQUENCE 1:
                                                                                                                                                                                                                              reducing archaeon Archaeoglobus fulgidus.";
Nature 390:364-370(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ARCFU
                                                                                          Pfam; PF01989; DUF126;
                                                                                                              EMBL; AE001102; AAB91166.1; TIGR; AF0055; -.
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Archaea, Eurya
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; PS00301; EFACTOR_GTP; 1.
FE; PS00301; EFACTOR_GTP; 1.
Jation factor; Protein blosynthesis; GTP-binding.
JATURE 19 26 GTP (BY SIMILARITY).
B5 89 GTP (BY SIMILARITY).
B7 GTP (BY SIMILARITY).
A3 GTP (BY SIMILARITY).
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P53761;
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"Cloning of rabbit LCAT cDNA: increase in LCAT mRNA abundance in
liver of cholesterol-fed rabbits.";
J. Lipid Res. 37:1616-1622(1996).
-i.- FUNCTION: CENTRAL ENZYME IN THE EXTRACELLULAR METABOLISM OF E
LIPOPROTEINS. AMONG OTHER SUBSTRATES IT ESTERIFIES THE FREE
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Lagomorpha; Leporidae; Oryctolagus.
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01-OCT-1996 (Rel. 34, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
PHOSPHATIDYLCHOLINE-STEROL ACYLTRANSFERASE PRECURSOR (EC 2.3.1.43)
(LECTIFIIN-CHOLESTEROL ACYLTRANSFERASE) (PHOSPHOLIPID-CHOLESTEROL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               entities requires a license agreement (s or send an email to license@isb-sib.ch).
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ENZYME REGULATION: APOLIPOPROTEIN A-I IS A POTENT ACTIVATOR FOR
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Matches 7; Conserv
Q9N6A6;
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01-OCT-2000
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                                                                                                                                                    "Reduced X-linked nucleotide polymorphism in Drosophila simulans.";
Proc. Natl. Acad. Sci. U.S.A. 97:5960-5965(2000).
EMBL; AF252765; AAF68548.1; -.
NON_TER 1 1
NON_TER 399 399
SEQUENCE 399 AA; 44812 MW; 21ECDA04D41A7CF0 CRC64;
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256 GQVLVQPG 263
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  Q9NVQ9;
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                                                                                                                                                 Schizosaccharomyces pombe DNA double strand break repair gene."; submitted (MAY-1997) to the EMBL/GenBank/DDBJ databases.

EMBL; AF006264; AAD01193.1; -. SeQUENCE 547 AA; 62613 MW; 544AAA31F77777---
                                                                                                                                                                                            McKay M.J., van der Spek P., Kanaar R.,
MhHR21spB, a second human gene homologo
                                                                                                                                                                                                                                              Eukaryota; Metazoa;
Mammalia; Eutheria;
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Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta;
Pterygota; Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;
Ephydroidea; Drosophilidae; Drosophila.
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RA Adams M.D. Celniker S.E., Holt R.A., Evans C.A., Gocayne J.D.,
RA Adamantides P.G., Scherer S.E., Li P.W., Hoskins R.A., Galle R.F.,
RA George R.A., Lewis S.E., Richards S., Ashburner M., Henderson S.N.,
RA George R.A., Lewis S.E., Yandell M.D., Zhang Q., Chen L.X.,
RA Sutton G.G., Wortman J.R., Yandell M.D., Zhang Q., Chen L.X.,
RA Sutton G.G., Wortman J.R., Yandell M.D., Zhang Q., Chen L.X.,
RA Sutton G.G., Rogers Y.-H.C., Blazej R.G., Champe M., Pfeiffer B.D.,
RA Brandon R.C., Rogers Y.-H.C., Blazej R.G., Champe M., Pfeiffer B.D.,
RA Wan K.H., Doyle C., Baxter E.G., Helt G., Nelson C.R., Miklos G.L.G.,
RA Wan K.H., Doyle C., Baxter E.G., Helt G., Nelson C.R., Miklos G.L.G.,
RA Ballew R.M., Basu A., Baxendale J., Bayraktargolu L., Beasley E.M.,
RA Beeson K.Y., Benos P.V., Berman B.P., Bhandari D., Bolshakov S.,
RA Berkova D., Botchan M.R., Bouck J., Brokstein P., Brottler P.,
RA Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
RA Glodek S., Content J., Benos Z., Mays A.D., Dew I., Dietz S.M.,
RA Durbin K.J., Evangelista C.C., Ferraz C., Ferriera S., Fleischmann W.,
RA Glodek A., Gong F., Gorrell J.H., Gu Z., Gebart W.M., Glasser K.,
RA Harris N.L., Harvey D., Heiman T.J., Hernandez J.R., Houck J.,
RA Hostin D., Houston K.A., Howland T.J., Wei M.-H., Ibeyam C.,
RA Hostin D., Houston K.A., Howland T.J., Wei M.-H., Ibeyam C.,
RA Liu X., Mattei B., McIntosh T.C., Kravitz S., Kulp D., Lal Z.,
RA Meinerl B.E., Kodira C.D., Kraft C., Kravitz S., Kulp D., Lal Z.,
RA Mount S.M., Moy M., Murphy B., Murphy L., Muzny D.M., Nelson D.L.,
RA Nelson D.R., Patleb J.M., Nelson K.A., Nixon K., Nusskern D.R., Pacleb J.M.,
RA Reinert K., Remington K., Saunders R.D.C., Scheeler F., Shen H.,
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Q9VXD5;
Q9VXD5;
Q1-MAY-2000 (TrEMBLrel. 13, C
Q1-MAY-2000 (TrEMBLrel. 13, L
Q1-OCT-2000 (TrEMBLrel. 15, L
R GENE PRODUCT.
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Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta;
Pterygota; Neoptera; Endopterygota; Diptera; Brachycera; Musc
Ephydroidea; Drosophilidae; Drosophila.
NCBI_TaxID-7227;
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Submitted (FEB-200) to the EMBL/GenBank/DDBJ databases.
EMBL; AKO01435; BAA91690.1; -
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75.0%;
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Spier E., Spradling A.C., Stapleton M., Skupski M.P., Smith T.,

RA Svirskas R., Tector C., Turner R., Venter E., Wang A.H., Wang X.,

RA Williams S.M., Woodage T., Worley K.C., Wu D., Yang S., Yao Q.A.,

RA Zheng X.H., Zhong F.N., Zhan M., Zhan G., Zhao Q., Zheng L.,

RA Zheng X.H., Zhong F.N., Zhan W., Zhou X., Zhu X., Smith H.O.,

RA Gibbs R.A., Myers E.W., Rubin G.M., Venter J.C.;

RT The genome sequence of Drosophila melanogaster.";

RL Science 287:2185-2195(2000).

PR HSSP; P00479; 3CSU.

RE FLYBASE; FRANCASSO.
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OS Mesocricetus auratus (Golden hamster).
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R INTERPRO; IPR0003191; -.

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R INTERPRO; IPR002029; -.

R INTERPRO; IPR002029; -.

R INTERPRO; IPR0020385; -.

R INTERPRO; IPR002385; -.

R PFAM; PF00189; CATESE_L.Chain; 2.

R PFAM; PF00989; CPSASE_L.Chain; 1.

R PFAM; PF00998; CPSASE_SM_Chain; 1.

R PRINTS; PR00097; ANTSNTHASEII.

R PRINTS; PR00099; CPSASE.

R PRINTS; PR00009; CPSASE.

R PRINTS; PR00009; ATCASE.

R PRINTS; PR00101; ATCASE.

R PRINTS; PR00101; ATCASE.

R PROSITE; PS00442; GATASE_TYPE_I; 1.

R PROSITE; PS00442; GATASE_TYPE_I; 1.

R PROSITE; PS00483; DIHYDROOROTASE_2; 2.

SEQUENCE 2189 AA; 242759 MW; 42FDC09A6136A94F CRCC
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subunit (hamTERT).";
Submitted (MAY-1999) to the
EMBL; AF149012; AAF17334.1;
SEQUENCE 1128 AA; 128393
                                                                                                SEQUENCE FROM N.A.

"Cloning of the CDNA and
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Pred. No.
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Best Local S
Matches 7
                                                                       Query Match
Best Local S
Matches 6
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Best Local S
Matches 7
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056048;
01-JUN-1998
01-JUN-1998
01-JUN-1998
                                                                                                                                                                                                     Virus Res. 0:0-0(1997).
EMBL; AF020604; AAB93555.1;
NON_TER 1 1
NON_TER 27 27
SEQUENCE 227 AA; 24525 M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAPSID PROTEIN (FRAGMENT). Hepatitis E virus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     promoter.";
Submitted (JUN-1999) to the
EMBL; AF157502; AAF42984.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mus musculus (Mouse) Eukaryota; Metazoa; Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q9JLM1;
01-OCT-2000
                                                                                                                                                                                                                                                                                                             Gouvea V., Snellings N., Co
Shrestha M.P., Vaughn D.W.,
Virus Res. 0:0-0(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Viruses; ssRNA positive-strand
NCBI_TaxID=12461;
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01-OCT-2000
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                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
STRAIN-TK15/92/NEPAL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RNA-directed DNA polymerase.
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"Identification of the mouse telomerase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NCBI_TaxID=10090;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       35
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                                                                                                  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0 (TrEMBLrel. 15, Last sequence update)
0 (TrEMBLrel. 15, Last annotation update)
REVERSE TRANSCRIPTASE (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           104 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (TrEMBLrel.
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                                                                          Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (Mouse).
etazoa; Chordata;
theria; Rodentia;
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                                                                                                                                                                                                        227
24525 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           11998 MW;
                                                                                                  82.9%;
85.7%;
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87
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87
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                                                                                                                                                                                                                                                                                                                                        Cohen S.
W., Hoke
                                                                       Score 34; DB
Pred. No. 34;
1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Created)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
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Pred.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     viruses,
                                                                                                                                                                                                          887B492F9559F128
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                                                                                                                                                                                                                                                                                                                                        С.Н.
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15;
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1.1e+02;
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Innis l
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Murinae; Mus
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RILVQPG

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Q9W8Z7
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Best Local s
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Best Local S
Matches 6
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NON_TER
SEQUENCE
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STRAIN-TK78/87/NEPAL, TK104/91/NEPAL, TK4/95/NEPAL, NEP4/94/NEPAL;
Gouvea V., Snellings N., Cohen S.J., Warren R.L., Myint K.S.A.,
Shrestha M.P., Vaughn D.W., Hoke C.H. Jr., Innis B.L.;
"Hepatitis E virus in Nepal: similarities with the Burmese and Indian
                                                                                                                                                                                                                                                                                                                                                                                                         Virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-NOV-1999 (TrEMBLrel. 12,
01-NOV-1999 (TrEMBLrel. 12,
01-NOV-1999 (TrEMBLrel. 12,
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Viruses; ssRNA positive-strand viruses,
NCBI_TaxID=12461;
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SEQUENCE
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Virus Res. 0:0-0(1997)
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STRAIN-TK5/95/NEPAL;
GOUVEA V., SNEILINGS N.,
Shrostha M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-JUN-1998 (TrEMBLrel. 06, 01-JUN-1998 (TrEMBLrel. 06, 01-JUN-1998 (TrEMBLrel. 06, CAPSID PROTEIN (FRAGMENT). Hepatitis E virus.
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01-JUN-1998
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                                                                             RILVQPG 58
                                                                                                                   RVLVQPG 8
                                                                                                                                                                                                                                                                                                                                                           AF020608;
AF020603;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RVLVQPG 8
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AF020605; AAB93556.1;
                                                                                                                                                          Similarity 6; Conserv
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120608; AAB93559.1; -.
120603; AAB93554.1; -.
120606; AAB93557.1; -.
120607; AAB93558.1; -.
                                                                                                                                                        Conservative
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24555 MW;
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85
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85.7%;
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                                                                                                                                                  Score 34; DB
Pred. No. 34;
1; Mismatches
                                                                                                                                                        1,
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Pred. No. 34;
1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1;
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Last sequence update)
Last annotation updat
                                                                                                                                                                                                                                                    BFB461995A78A997 CRC64;
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ke C.H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3FAD6B04E634F65F CRC64;
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1. Jr., I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            227
                                                                                                                                                                       DB
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RX MEDLINE-20365717; PubMed-10910347;

RA Alvarenga R. Alves L.M.C., Araya J.E., Baia G.S., Baptista C.S.,

RA Alvarenga R., Alves L.M.C., Araya J.E., Baia G.S., Baptista C.S.,

RA Barros M.H., Bonaccorsi E.D., Bordin S., Bove J.M., Briones M.R.S.,

RA Bueno M.R.P., Camargo A.A., Camargo L.E.A., Carraro D.M., Carrer H.,

RA Coltinho L.L., Cristofani M., Dias-Neto E., Docena C., El-Dorry H.,

RA Facincani A.P., Ferreira A.J.S., Ferreira V.C.A., Ferro J.A.,

RA Fraga J.S., Franca S.C., Franco M.C., Frohme M., Furlan L.R.,

RA Garnier M., Goldman G.H., Goldman M.H.S., Gomes S.L., Gruber A.,

RA HO P.L., Hoheisel J.D., Junqueira M.L., Kemper E.L., Kitajima J.P.,

RA Krieger J.E., Kuramae E.E., Laigret F., Lambais M.R., Leite L.C.C.,

RA Marchado M.A., Madeira A.M.B.N., Madeira H.M.F., Marino C.L.,

RA Marques M.V., Martins E.A.L., Martins E.M.F., Matsukuma A.Y.,

RA Menck C.F.M., Miracca E.C., Miyaki C.Y., Monteiro Vitorello C.B.,

RA Moon D.H., Nagai M.A., Nascimento A.L.T.O., Netto L.E.S.,

RA Mont D.H., Nagai M.A., Nascimento A.L.T.O., Netto L.E.S.,

RA Mont S.R., Pereira G.A.G., Pereira H.A. Jr., Pesquero J.B.,

RA Mont S.R., Pereira G.A.G., Pereira H.A. Jr., Pesquero J.B.,

RA de Rosa V.E. Jr., de Sa R.G., Rodrigues V., de Rosa A.J.M.,

RA de Souza A.P., Terenzi M.F., Tuffi D., Tsai S.M., Tsuhako M.H.,

RA de Souza A.P., Terenzi M.F., Tuffi D., Tsai S.M., Tsuhako M.H.,

RA de Souza A.P., Terenzi M.F., Tuffi D., Tsai S.M., Tsuhako M.H.,

RA de Souza A.P., Terenzi M.F., Tuffi D., Tsai S.M., Tsuhako M.H.,

RA Ada Silveira J.F., Salvesti M.L.Z., Siqueira W.J., de Souza A.A.,

RA Ada Souza A.P., Terenzi M.F., Tuffi D., Tsai S.M., Tsuhako M.H.,

RA Ada Silveira J.F., Salvesti B.J., Setubal J.C.,

"The genome sequence of the plant pathogen Xylella fastidiosa.";

DR Mall J. ACCO., Jan. Salvesti M.S., Setubal J.C.,

RA Marchado M.A., Marchado J., Setubal J.C.,

RA Marchado M.A., Salvesti M.S., Setubal J.C.,

RA Mont M.A., Salvesti M.S., Setubal J.C.,

RA Marchado M.S., Salvesti M.
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Best Local S
Matches 7
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01-MAY-1999 (TrEMBLrel.
01-MAY-1999 (TrEMBLrel.
Viruses; ssrNA positive-strand viruses, no DNA stage NCBI_TaxID=12461;
                                                                                                                STRUCTURAL PROTEIN 2 (FRAGMENT).
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PRINTS; PR00603; CYTOCHROMEC1.
PROSITE; PS00190; CYTOCHROME_C; UNKNOWN_1.
SEQUENCE 253 AA; 28431 MW; 78C4F596EADCDBA7 CRC64;
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01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
01-OCT-2000 (TrEMBLrel. 15, Last annotation update)
UBIQUINOL CYTOCHROME C OXIDOREDUCTASE, CYTOCHROME C
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Pred. No.
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Matches 6
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Matches 6
SEQUENCE FROM N.A.
STRAIN-CH-T21;
Yang J., Zhang H., Wang Y., Li H.;
Yang J., Zhang H., Wang Y., Li H.;
"Identification of a Novel Hepatitis
Acute Hepatitis in China.";
Submitted (MAY-1999) to the EMBL/GenB
                                                                                                                                                                                                                                                                                                                                                     Jiang L., Yang G., Shen X.L.;
"Cloning and sequence analysis of the 1.3Kb cDNA fragment reading frame 2 (ORF2) of hepatitis E virus (HEV).";
Submitted (APR-1999) to the EMBL/GenBank/DDBJ databases.
EMBL; AF141652; AAD33878.1; -.
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STRAIN-ZB NIH ABBOTTABAD, PAKISTAN;

STRAIN-ZB NIH ABBOTTABAD, PAKISTAN;

Van Cuyck-Candre H., Clements N.J., Zhang H.Y., Caudill J.C.,

Cohen S.G., Coursaget P., Buisson Y., Warren R.L., Longer C.F.;

"Partial Sequence of HEV Isolates from North Africa and Pakistan:

Comparison with Known HEV Sequences.";

Submitted (NOV-1995) to the EMBL/GenBank/DDBJ databases.

EMBL, U40045; AAD09446.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-NOV-1999 (TrEMBLrel. 12, Cr
01-NOV-1999 (TrEMBLrel. 12, La.
01-NOV-1999 (TrEMBLrel. 12, La.
STRUCTURAL PROTEIN (FRAGMENT).
Hepatitis E virus.
                                                                         Viruses; ssRNA positive-strand NCBI_TaxID-12461;
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Hepatitis E virus.
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STRAIN-CHINA;
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436 AA;
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283 AA;
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Pred. No. 66;
1; Mismatches
  EMBL/GenBank/DDBJ
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Pred. No.
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NON_TER 1 1
NON_TER 466 466
SEQUENCE 466 AA; 50425 M
                                                                                                                         Yang J., Zhang H., Wang Y., Li H.;
"Identification of a Novel Hepatitis
Acute Hepatitis in China.";
Submitted (MAY-1999) to the EMBL/GenE
EMBL; AF151962; AAD41518.1;
NON_TER
                                                                                                                                                                                                 Hepatitis E virus.
Viruses; ssRNA positive-strand viruses,
NCBI_TaxID=12461;
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completed: June me: 724 sec
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                                                                                                                  486 AA;
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Mismatches
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1: /cgn2_6/ptodata/2,
2: /cgn2_6/ptodata/2,
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4: /cgn2_6/ptodata/2,
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         June 13, 2001, 14:16:31 ; Search time 118.55 Seconds (without alignments) 1.296 Million cell updates/sec
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1 GRVLVQPG 8
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/cgn2_6/ptodata/2/laa/6A_COMB.pep:*
/cgn2_6/ptodata/2/laa/6B_COMB.pep:*
/cgn2_6/ptodata/2/laa/PCTUS_COMB.pep:*
/cgn2_6/ptodata/2/laa/Packfiles1.pep:*
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US-08-859-931A-4
US-07-843-125-11
US-08-259-148A-18
US-08-484-054-18
US-08-259-148A-17
US-08-259-148A-17
US-08-259-148A-17
US-08-259-148A-17
PCT-US95-13703-28
PCT-US95-13703-28
PCT-US95-13703-25
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Sequence 72, Appl	Sequence 143, App	Sequence 2, Appli	Sequence 38, Appl	Sequence 38, Appl	Sequence 16, Appl	Sequence 16, Appl	Sequence 16, Appl	Sequence 108, App	Sequence 125, App	Sequence 1, Appli	Sequence 14, Appl	Sequence 13, Appl	Sequence 2, Appli				

ALIGNMENTS

Patent No. 5872215 GENERAL INFORMATION: APPLICATION NUMBER: US/08/652,816A FILING DATE: 23-MAY-1996 PRIOR APPLICATION DATA: APPLICATION NUMBER: GB 9125579.4 FILING DATE: 02-DEC-1991 PRIOR APPLICATION DATA: APPLICATION NUMBER: GB 9125579.8 APPLICATION NUMBER: GB 9125579.8 FILING DATE: 23 MAY-12 PRIOR APPLICATION DATA: APPLICATION NUMBER: POPULATION NUMBER: POPULATION DATA: FILING DATE: PRIOR APPLICATION DATA: APPLICATION NUMBER: US COUNTRY: Unit COMPUTER READABI MEDIUM TYPE: APPLICATION NUMBER: GB 9206372. FILING DATE: 23-SEP-1992 PRIOR APPLICATION DATA: APPLICATION NUMBER: GB 9525004. FILING DATE: 07-DEC-1995 PRIOR APPLICATION DATA: FILING DATE: 02-DEC-1991 PRIOR APPLICATION DATA: APPLICATION NUMBER: GB 9206318.9 FILING DATE: 24-MAR-1992 PRIOR APPLICATION DATA: PRIOR APPLICATION DATA: SOFTWARE: Patentin Rel CURRENT APPLICATION DATA: TITLE OF INVENTION: Specific NUMBER OF SEQUENCES: 5: CORRESPONDENCE ADDRESS: APPLICATION NUMBER: GB 9610824.6 FILING DATE: 23-MAY-1996 OPERATING SYSTEM: P STREET: 6300 S Y: United States of America READABLE FORM: Illinois Application US/08652816A E: Marshall, O'Toole, 6300 Sears Tower, 233 Allen, DJ McCafferty, Osbourn, IBM 02-DEC-1992 Floppy disk 01-JUN-1994 PC compatible EM: PC-DOS/MS-DOS entIn Release #1.0, Version #1.25 (EPO) Specific US 08/244,597 GB 9525004.9 PCT/GB92/02240 US/08/652,816A ď binding members, materials and Gerstein, Murray & Borun South Wacker Drive

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US-08-652-816A-12
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Matches 7
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INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                         MOLECULE TYPE: HYPOTHETICAL:
                                                                                                                                                                                             SEQUENCE CHARACTERISTICS:
LENGTH: 20 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
COFFMANDED: DATASET PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                  TELECOMMUNICATION INFORMATION:
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CURRENT APPLICATION DATA:
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CORRESPONDENCE ADDRESS:
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TITLE OF INVENTION:
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                                                                                                                                                                                                                                                                              NAME: KIT, Gordon
REGISTRATION NUMBER: 30,764
REFERENCE/DOCKET NUMBER: A-
                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: FILING DATE: 21 MAY CLASSIFICATION: 514
                                                                                                                                                                     TOPOLOGY:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                E: SUGHRUE, MION, ZINN, MACPEAK & SEAS 2100 Pennsylvania Avenue, N.W., Suite 800
                                                      Conservative
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FASANO, Alessio
FASANO, SUBSTANTIALLY PURE ZONULIN,
VENTION: PHYSIOLOGICAL MODULATOR OF
VENTION: MAMMALIAN TIGHT JUNCTIONS
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21 MAY 1997
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87.5%;
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                                                   Score 34; DB 2;
Pred. No. 0.88;
0; Mismatches
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Pred. No. 1
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US-07-843-125-11
US-07-843-125-11
; Sequence 11, Application US/07843125
; Patent No. 5395750
                                                                                                                                                                                                                                                                                              Sequence 18
                                                                                                                                                                                                                                                            GENERAL INFORMATION:
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                                          APPLICANT: Yarbough, Patrice D.
TITLE OF INVENTION: Hepatitis E Virus Vaccine and Method
NUMBER OF SEQUENCES: 60
CORRESPONDENCE ADDRESS:
ADDRESSE: Dehlinger & Associates
STREET: 350 Cambridge Avenue, Suite 250
                                                                                                                                                                                                                            APPLICANT:
APPLICANT:
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
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LENGTH: 246 amino acid
                                                                                                                                                                                                                APPLICANT:
COUNTRY: USA
ZIP: 94306
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NAME: Roseman, Catherine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Dillon, Patrick J
APPLICANT: Rosen, Craig A
TITLE OF INVENTION: Methods for Producing
TITLE OF INVENTION: Bind to Predetermined
NUMBER OF SEQUENCES: 13
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                                 STATE: CA
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CITY: Nutley
STATE: New Je
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Tam, Albert W.
Krawczynski, Krzysztof Z.
                                                                                                                                                                                                            Reyes, Gregory R.
Bradley, Daniel W.
Twu, Jr-Shin
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Pred. No. 13;
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US-08-259-148A-18
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APPLICANT: Reyes,
APPLICANT: Bradle
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REGISTRATION NUMBER: 38,615
REFERENCE/DOCKET NUMBER: 4600-0093.20
TELECOMMUNICATION INFORMATION:
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ATTORNEY/AGENT INFORMATION:
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APPLICATION NUMBER: US 505,888
FILING DATE: 05-APR-1990
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORIGINAL SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MOLECULE TYPE: protein HYPOTHETICAL: NO
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APPLICATION NUMBER: US 420,921
FILING DATE: 13-OCT-1989
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MEDIUM TYPE: Floppy disk
                                                          APPLICANT: Tam, Albert W.
APPLICANT: Krawczynski, Krzysztof Z.
TITLE OF INVENTION: Hepatitis E Virus Vaccine and Method NUMBER OF SEQUENCES: 22
                                                                                                                                    APPLICANT:
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FILING DATE: 11-APR-1989
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OPERATING SYSTEM: PC-DOS/MS-DOS
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                STREET:
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Palo Alto
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                E: Dehlinger & Associates
350 Cambridge Avenue, Suite 250
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Bradley, Daniel W.
Twu, Jr-Shin
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85.7%;
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                                                                                                                                                                                                                                                                                                                                                                                              Score 34; DB 1;
Pred. No. 23;
1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                                                                                                                                                                                                                                                                                Length 435;
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; MOLECULE TYPE: protein
; HYPOTHETICAL: NO
; ORIGINAL SOURCE:
; INDIVIDUAL ISOLATE: (
US-08-484-054-18
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US-07-876-941A-18
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
""thes 6; Conserva
                                                                                                                                                                                                                                                                                                                    Sequence 18, Application US/07876941A Patent No. 5885768
                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEFAX: (415) 324-0960
INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
LENGTH: 435 amino acids
                          TITLE OF INVENTION: Hepatitis E Virus Peptide Antigen and TITLE OF INVENTION: Antibodies NUMBER OF SEQUENCES: 76
                                                                                                                        APPLICANT: Reyes, Gregory
APPLICANT: Bradley, Daniel
APPLICANT: Tam, Albert W.
APPLICANT: Mitchell, Carl
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APPLICATION DATA:

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FILING DATE: 13-OCTOBER-1989
PRIOR APPLICATION DATA:
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APPLICATION NUMBER: US 505,888
FILING DATE: 05-APRIL-1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE: Patentin Rel
CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE: 17-JUNE-198 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: FILING DATE: 16-JUNE PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US 870,985 FILING DATE: 20-APRIL-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: 0'CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY: UZIP: 94306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REGISTRATION NUMBER: 38,615
REFERENCE/DOCKET NUMBER: 4600-0093.38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME: Sholtz, Charle REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OPERATING SYSTEM:
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                                                                                                                                                                                                   Reyes, Gregory R.
Bradley, Daniel W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           E: Floppy disk
IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      linear
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ADDRESS:
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07-JUN-1995
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US 367,486
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Pred. No. 23;
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US-08-259-148A-17

Sequence 17, Application US/08259148A

Patent No. 5741490
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Best Local Similarity
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                                                                                                           GENERAL INFORMATION:
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INFORMATION FOR SEQ ID NO:
                                                                               APPLICANT:
             APPLICANT:
                                        APPLICANT:
                                                      APPLICANT:
                                                                                                                                                                                                                                                                                                                                                             MOLECULE TYPE: protein HYPOTHETICAL: NO ORIGINAL SOURCE:
                                                                     APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME: Sholtz, Charles K.
REGISTRATION NUMBER: 38,615
REFERENCE/DOCKET NUMBER: 4600-0093.33
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: 17-JUNE-1988
ATTORNEY/AGENT INFORMATION:
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PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 208
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FILING DATE: 05-APRIL-1990
PRIOR APPLICATION DATA:
ADDITIONATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 822,335
FILING DATE: 17-JAN-1992
PRIOR APPLICATION DATA:
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PRIOR APPLICATION DATA:
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9 RILVQPG 15
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: FILING DATE: 16-JUN
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                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGTH:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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STREET: 350 Cambridge Avenue, Suite 250
                                                                                                                                                                                                                                                                                                                                                                                                                    amino acid
Tam, Albert W.
Krawczynski, Krzysztof Z.
Yarbough, Patrice D.
                                                                           Reyes, Gregory R.
Bradley, Daniel W.
                                                                                                                                                                                                                                                                                                                                                                                                                                435 amino acids
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                                                                Bradley, Dan:
Twu, Jr-Shin
                                                   Purdy,
                                                                                                                                                                                                                                                                 Conservative
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                                                 Michael A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        324-0960
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                                                                                                                                                                                                                                                                          Score 34;
Pred. No.
                                                                                                                                                                                                                                                                                      DB 2;
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RESULT 8
US-08-484-054-17
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                                                                                      Sequence 17, Appli
Patent No. 5770689
                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                       Query Match
                                                                    GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEFAX: (415) 324-099
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 436 amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US 420,921
ETIJING DATE: 13-OCT-1989
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 367,486
ETILING DATE: 16-JUN-1989
PRIOR APPLICATION DATA:
APPLICATION DATA:
APPLICATION UMBER: US 336,672
ETIJING DATE: 11-APR-1989
PRIOR APPLICATION DATA:
APPLICATION UMBER: US 336,672
PRIOR APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
                     APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CLASSIFICATION: 424
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 822,335
EILING DATE: 17-JAN-1992
PRIOR APPLICATION NUMBER: US 505,888
FILING DATE: 05-APR-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 420,921
PRIOR APPLICATION NUMBER: US 420,921
                                                      APPLICANT:
                                                                                                                                                                                                                                                                                                                                            HYPOTHETICAL: NO
ORIGINAL SOURCE:
INDIVIDUAL ISOLATE: C2, BURMA, FIGURE
                                                                                                                                                                                                                                                                                                                                                                                                MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE/DOCKET NUMBER: 46
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: 17-JUN-1988
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0,
CURRENT APPLICATION DATA:
                                                                                                                                                                                     2 RVLVQPG 8
|:|||||
9 RILVQPG 15
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CORRESPONDENCE ADDRESS:
ADDRESSEE: Dehlinger & Associates
STREET: 350 Cambridge Avenue, Suite 250
                                                                                                                                                                                                                                                     Local Similarity 85. 
les 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STREET: 330
CITY: Palo, Alto
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: US 2
FTLING DATE: 17-JUN-1988
                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME: Sholtz, Charles K. REGISTRATION NUMBER: 38,
                                                                                                                                                                                                                                                                                                                                                                                                                      TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEPHONE:
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                                                                                                  Application US/08484054
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Bradley, Daniel w
Twu, Jr-Shin
Purdy, Michael A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                  436 amino acids
                               Reyes, Gregory R. Bradley, Daniel W.
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                                                                                                                                                                                                                                                                   82.9%;
85.7%;
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                                                                                                                                                                                                                                                Pred. No. 23;
1; Mismatches
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                                                                                                                                                                                                                                                                            1; Length 436;
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APPLICANT:

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RESULT 9
US-07-876-941A-17
; Sequence 17, Application US/07876941A
; Patent No. 5885768
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                                                                                                                                                                   Query Match
Best Local Similarity
6; Conserve
                                                                                                                                                                                                                                                                         ; INDIVIDUAL ISOLATE: C2, BURMA, FIGURE US-08-484-054-17
                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEFAX: (415) 324-091
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 336,672
FILING DATE: 11-APRIL-1989
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 208,997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: US 505,888 FILING DATE: 05-APRIL-1990 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CORRESPONDENCE ADDRESS:
ADDRESSEE: Dehlinger & Associates
STREET: 350 Cambridge Avenue, Suite 250
                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS:
LENGTH: 436 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REGISTRATION NUMBER: 38,615
REFERENCE/DOCKET NUMBER: 4600-0093.38
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US 420,9:
FILING DATE: 13-OCTOBER-1989
PRIOR APPLICATION DATA:
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FILING DATE: 17-JAN-
PRIOR APPLICATION DATA:
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APPLICATION NUMBER: US 870,985
FILING DATE: 20-APRIL-1992
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                            TOPOLOGY: lines MOLECULE TYPE: pr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Tam, Albert W APPLICANT: Krawczynski, I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: FILING DATE: 16-JUN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US/08 FILING DATE: 07-JUN-1995 CLASSIFICATION: 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE: 17-JUNE-1988
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                                                                                                               9 RILVOPG 15
                                                                                                                                                 2 RVLVQPG 8
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VENTION: Hepatitis E Virus Vaccine and Method
                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                 linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (415) 324-0880
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                                                                                                                                                                                                                                                                                                                                              protein
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) 324-0960
NO: 17:
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                                                                                                                                                                                                     82.9%;
85.7%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US 420,921
                                                                                                                                                                                  Score 34; DB 1; Length 436;
Pred. No. 23;
1; Mismatches 0; Indels
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                                               Query Match
Best Local Similarity
""Thes 6; Conserve
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                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US 336,6
FILING DATE: 11-APRIL-1989
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 208,9
FILING DATE: 17-JUNE-1988
ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                          TELEFAX: (415) 324-0960 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                         MOLECULE TYPE: protein HYPOTHETICAL: NO ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                        REGISTRATION NUMBER: 38,615
REFERENCE/DOCKET NUMBER: 466
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 324-0880
                                                                                                                                                                                                                                                       SEQUENCE CHARACTERISTICS:
LENGTH: 436 amino acid:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: 13-OCTO PRIOR APPLICATION DATA:
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PRIOR APPLICATION DATA:
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APPLICATION NUMBER: US 8
FILING DATE: 17-JAN-1992
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US 505,888
FILING DATE: 05-APRIL-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 420,921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: 01-MAY-1992
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER: IBM PC
OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CITY: Palo Alto
STATE: CA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER:
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                  2 RVLVQPG 8
9 RILVQPG 15
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                                                                                                                                                                                                                                                          436 amino acids
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Bradley, Daniel W.
Tam, Albert W.
                                                               Conservative
                                                                                                                                                                                                                          linear
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                                                                                82.9%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US/07/876,941A
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                                                                               .78;
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    Mismatches

                                                                           Score 34;
Pred. No.
                                                                         DB
23;
                                                                                               2;
                                                                                            Length 436;
                                                               Indels
                                                               0,
                                                              Gaps
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RESULT 10
PCT-US95-13703-27
; Sequence 27, Application PC/TUS9513703

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Sequence 28, Application PC/TUS9513703 GENERAL INFORMATION:
APPLICANT:
                                        COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                       COUNTRY: USA
ZIP: 94306-0850
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEFAX: (415) 324-0960 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                     TITLE OF INVENTION: HE
TITLE OF INVENTION: US
NUMBER OF SEQUENCES: 3
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                             122 RILVOPG 128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HYPOTHETICAL: NO ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TOPOLOGI TYPE: pr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE CHARACTERISTICS:
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REFERENCE/DOCKET NUMBER: 4600-0293.41
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                            STREET: P.O. BO:
CITY: Palo Alto
STATE: CA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATTORNEY/AGENT INFORMATION:
NAME: Fablan, Gary R.
REGISTRATION NUMBER: 33,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US95/13703
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH: 525 amino
TYPE: amino acid
STRANDEDNESS: sin
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ZIP: 94306-0850
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUMBER OF SEQUENCES: 3
CORRESPONDENCE ADDRESS:
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les 6; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INDIVIDUAL ISOLATE: Hepatitis E virus (Burma strain)
                                                                                                                                                                                                                                                                                                                                                                                                                                             2 RVLVQPG 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CLASSIFICATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                    E: Dehlinger & Associates P.O. Box 60850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             525 amino acids
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85.7%;
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                          PCT/US95/13703
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Pred. No. 28;
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HYPOTHETICAL: NO
ORIGINAL SOURCE:
INDIVIDUAL ISOLATE: I
INDIVIDUAL ISOLATE: PCT-US95-13703-28
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                                                                                                                     TELEFAX: (415) 324-096
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 540 amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 25, Application PC/TUS9513703 GENERAL INFORMATION:
                                                                                                                                                                                                            APPLICATION NUMBER: PCT/US95/
FILING DATE:
CLASSIFICATION:
ATTORNEY/AGENT INFORMATION:
NAME: Fabian, Gary R.
REGISTRATION NUMBER: 33,875
REFERENCE/DOCKET NUMBER: 4600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
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                          MOLECULE TYPE: PI
HYPOTHETICAL: NO
ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                  MEDIUM TYPE: Floppy disk
COMPOTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEFAX: (415) 324-0960
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                             TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT:
TITLE OF INVENTION:
TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                  STREET: F.C.
CITY: Palo Alto
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQUENCES:
INDIVIDUAL ISOLATE: Hepatitis E virus (Burma strain)
                                                                           STRANDEDNESS:
TOPOLOGY: lir
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE/DOCKET NUMBER: 46
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 324-0880
                                                                                                      TYPE: amino acid
                                                                                                                                                                                 TELEPHONE:
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REGISTRATION NUMBER: 33,875
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O. Box 60850
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85.7%;
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r62kDa, 56.5 kDa
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Pred. No.
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PCT-US95-13703-27

TELEPHONE:

Indels

0

Gaps

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Query Match Matches

PCT-US95-13703-28

ADDRESSEE:

RESULT

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RESULT 14
PCT-US95-13703-15
; Sequence 15, Application PC/TUS9513703
; GENERAL INFORMATION:
; APPLICANT:
; TITLE OF INVENTION: HEPATITIS E VI
                                                                                                                                                                                     Query Match
Best Local Similarity
6; Conserv
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Best Local Similarity
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; Sequence 26, Application PC/TUS9513703
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; INDIVIDUAL ISOLATE: r62kDa, 58.1 kDa PCT-US95-13703-25
                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEFAX: (415) 324-0960 INFORMATION FOR SEQ ID NO: :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ZIP: 94306-0850
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                 MOLECULE TYPE: protein HYPOTHETICAL: NO ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME: Fabian, Gary R.
REGISTRATION NUMBER: 33,875
REFERENCE/DOCKET NUMBER: 466
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 324-0880
                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE CHARACTERISTICS:
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CORRESPONDENCE ADDRESS:
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                                                                                                                                           122 RILVQPG 128
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O. Box 60850
                                                                                                                                                                                                              82.9%;
85.7%;
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                          HEPATITIS E VIRUS ANTIGENS AND
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                                                                                                                                                                                                                                                                                   Hepatitis E virus (Mexico strain) r62kDa, 58.1 kDa
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                                                                                                                                                                                                 Score 34; DB
Pred. No. 29;
l; Mismatches
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Pred. No.
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INDIVIDUAL ISOLATE:
PCT-US95-13703-15
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Best Local :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ZIP: 943Ub-VULL
ZIP: 943Ub-VULL
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
MEDIUM TYPE: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: PC-DOS/MS-DOS
C-10ase #1.0
                                              COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, V.
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US95/13703
                                                                                                                               COUNTRY: USA
ZIP: 94306-0850
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                  TITLE OF INVENTION: HE
TITLE OF INVENTION: US
NUMBER OF SEQUENCES: 3
CORRESPONDENCE ADDRESS:
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NAME: Fabian, Gary R.
REGISTRATION NUMBER: 33,875
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CORRESPONDENCE ADDRESS:
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LENGTH: 549 amino acid
ATTORNEY/AGENT INFORMATION
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nes 6; Conserv
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OPERATING SYSTEM:
SOFTWARE: PatentI
              FILING DATE:
CLASSIFICATION:
                                                                                                                                                                                                                  STREET: P.O. Box 60850
CITY: Palo Alto
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                                                                                   Version #1.25
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Maximum DB
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Perfect score:
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1. /SIDS6/gcgdatta/geneseq/geneseqp/AA1980.DAT:*

2. /SIDS6/gcgdatta/geneseq/geneseqp/AA1981.DAT:*

3. /SIDS6/gcgdatta/geneseq/geneseqp/AA1982.DAT:*

4. /SIDS6/gcgdatta/geneseq/geneseqp/AA1983.DAT:*

5. /SIDS6/gcgdatta/geneseq/geneseqp/AA1984.DAT:*

6. /SIDS6/gcgdatta/geneseq/geneseqp/AA1986.DAT:*

7. /SIDS6/gcgdatta/geneseq/geneseqp/AA1986.DAT:*

8. /SIDS6/gcgdatta/geneseq/geneseqp/AA1987.DAT:*
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Maximum Match 100%
Listing first 45 s
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1.995 Million cell updates/sec
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Gapop 10.0 , Gapext 0.5
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /SIDS6/gcgdata/geneseq/geneseqp/AA1988.DAT:*
/SIDS6/gcgdata/geneseq/geneseqp/AA1989.DAT:*
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Peptide antagonist Peptide antagonist Peptide antagonist Arabidopsis thalia Arabidopsis thalia Arabidopsis thalia Arabidopsis thalia Arabidopsis thalia Arabidopsis thalia Peptide antagonist Peptide antagonist
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ALIGNMENTS

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RESULT
Y79108
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                                                                                                                                               W0200007609-A1
                                                                                                                                                                    Synthetic
                                                                                                                                                                                                  hypotensive; immunosuppressive; antiparasitic; vasotropic;
                                                                                                                                                                                                           Zonulin; antagonist; zonula occludens toxin receptor; blood-brain barrier; antiinflammatory; cerebroprotective; neuroprotective; dermatological; antiulcer; antiviral; antibacterial; cytostatic; anti-HIV; vulnerary; antiallergic;
                                                                                                                                                                                                                                                                                      05-JUN-2000 (first entry)
                                        Fasano A;
                                                                                  03-AUG-1998;
                                                                                                      28-ЈОС-1999;
                                                                                                                                                                                        gastrointestinal inflammation; therapy
                                                                                                                                                                                                                                                                 Peptide antagonist of zonulin.
                                                                                                                                                                                                                                                                                                            Y79108;
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                                                            (UYMA-) UNIV MARYLAND BALTIMORE
                                                                                  98US-0127815.
                                                                                                      99WO-US16683
                                                                                                                                                                                                                                                                                                                                 8
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New peptide antagonist of zonulin useful as antiinflammatory agent for

WPI; 2000-205565/18

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Query Match
Best Local Similarity
""" 8; Conserv
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            (UYMA-) UNIV
                                                                                        03-AUG-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (4), one of 23 such peptides (see Y79105-29) of the invention, which bind to a zonula occludens toxin (ZOT) receptor, yet do not physiologically modulate the opening of mammalian tight junctions (TT). The postide article is the property of the property o
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              treating cerebral ischemia, stroke, shigellosis, viral gastroenteritis,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
MARYLAND BALTIMORE.
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                                                                                    98US-0127815
                                                                                                                                                                99WO-US16683.
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Pred. No.
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This present sequence is that of a peptide antagonist of zonulin (2), one of 25 such peptides (see y79105-29) of the invention, which bind to a zonula occludens toxin (ZOT) receptor, yet do not CV which bind to a zonula occludens toxin (ZOT) receptor, yet do not CV physiologically modulate the opening of mammalian tight junctions (TJ). The peptide antagonists are based on a common motif of ZOT and human zonulins, which is believed to be critical for receptor and human zonulins, which is believed to be critical for receptor combinant DNA techniques. The peptide antagonists are used as an antiinflammatory agents in the treatment of gastrointestinal confilammation, where they bind to the ZOT receptor in the intestine and yet does not physiologically modulate the opening of TJ in the concessed intestinal permeability and the peptide is useful for treating intestinal conditions that cause protein losing enteropathy caused by infestion, e.g. Clostridium difficile infection, e.g. Clostridium difficile infestion, bacterial overgrowth, whipple's disease, disease with mucosal erosion or ulcerations, e.g. aratritie, caneric cancer
                                                        mucosal erosion or ulcerations, e.g. gastritis, gastric cancer, collagenous colitis, inflammatory bowel disease, diseases marked by lymphatic obstruction, e.g. congenital intestinal lymphangiectasia, sarcoidosis lymphoma, mesenteric tuberculosis, and after surgical correction of congenital heart disease with Fontan's operation, mucosal diseases without ulceration, e.g. Menetrier's disease, coeliac disease, eosinophilic gastroenteritis, and immune diseases, e.g. systemic lupus erythematosus or food allergies, primarily to
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New peptide antagonist of zonulin useful as antiinflammatory agent for treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 1; Page 43; 69pp; English
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Y79106
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Matches 7; Conserv
17-FEB-2000
                                                                                       antibacterial; cytostatic; anti-HIV; vulnerary; antiallergic;
hypotensive; immunosuppressive; antiparasitic; vasotropic;
gastrointestinal inflammation; therapy.
                              WO200007609-A1
                                                                                                                                    neuroprotective; dermatological; antiulcer; antiviral;
                                                                                                                                                     Zonulin; antagonist; zonula occludens toxin receptor; blood-brain barrier; antiinflammatory; cerebroprotect
                                                                                                                                                                                                       Peptide antagonist of zonulin.
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: Pred. No. 3.2e
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                                                                                   therapy.
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В δÃ

Query Match

В 21;

Length

28-JUL-1999;

99WO-US16683

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CC (TJ). The peptide antagonists are based on a common motif of ZOT CC and human zonulins, which is believed to be critical for receptor Dinding. They can be prepared by chemical synthesis or by use of CC recombinant DNA techniques. The peptide antagonists are used as an CC antiinflammattory agents in the treatment of gastrointestinal CC inflammation, where they bind to the ZOT receptor in the intestine CC and yet does not physiologically modulate the opening of TJ in the CC increased intestinal conditions that cause protein losing enteropathy CC caused by infection, e.g. clostridium difficile infection, c.g. clostridium difficile infection, c.g. clostridium difficile infection, c.g. clostridium difficile infection, c.g. concerocolitis, shigelosis, viral gastroenteritis, parasite CC collagenous colitis, inflammatory bowel disease, diseases with CC collagenous colitis, inflammatory bowel disease, diseases with CC collagenous colitis, inflammatory bowel disease, diseases with CC correction of congenital heart disease, and after surgical CC correction of congenital heart disease with Fontan's operation, CC mucosal diseases without ulceration, e.g. Menetrier's disease, collage and construction, e.g. satroined and after surgical CC corection of congenital heart disease with Fontan's operation, CC collag disease, ossinophilic gastroenteritis, and immune diseases, collage as without ulceration, e.g. Menetrier's disease, collage as without ulceration, e.g. satroined in the collage as without ulceration, e.g. menetrier's disease, collage as without ulceration and collage as without ulceration, e.g. menetrier's disease, collage as without ulceration and collage as without ulceration and collage as without ulceration and collage as without ul
                                                                                                                                                                                                                                                                                                                   RESULT
G23560
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Best Local Similarity 87.1
Matches 7; Conservative
                                                                                                             Protein identification; signal transduction pathway; metabolic hybridisation assay; genetic mapping; gene expression control; termination sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                This present sequence is that of a peptide antagonist of zonul. (2), one of 25 such peptides (see Y79105-29) of the invention, which bind to a zonula occludens toxin (ZOT) receptor, yet do physiologically modulate the opening of mammalian tight junction,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New peptide antagonist of zonulin useful as antiinflammatory agent treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis
     06-SEP-2000
                                                                                                                                                                                     Arabidopsis thaliana protein fragment SEQ ID NO: 26913.
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Pred. No. 3.2e+05;
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promoter;
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Matches 7
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100.0%; Pr
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                                                                                                                                                                                                                                                                                       mapping;
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gene expression control; promoter;
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PR 14-CCT-1999; 99US-015933 PR 14-CCT-1999; 99US-015963 PR 18-CCT-1999; 99US-015958 PR 21-CCT-1999; 99US-016074 PR 21-CCT-1999; 99US-016074	13-OCT-1999; 99US-01 13-OCT-1999; 99US-01 14-OCT-1999; 99US-01 14-OCT-1999; 99US-01	07-OCT-1999; 99US-01 08-OCT-1999; 99US-01 12-OCT-1999; 99US-01 13-OCT-1999; 99US-01	29-SEP-1999; 99US-01 04-OCT-1999; 99US-01 05-OCT-1999; 99US-01 06-OCT-1999; 99US-01	23-SEP-1999; 99US-01 24-SEP-1999; 99US-01 28-SEP-1999; 99US-01	20-SEP-1999; 99US-01 22-SEP-1999; 99US-01	13-SEP-1999; 99US-01 15-SEP-1999; 99US-01 16-SEP-1999; 99US-01	07-SEP-1999; 99US-01 10-SEP-1999; 99US-01	31-AUG-1999; 99US-01 01-SEP-1999; 99US-01	27-AUG-1999; 99US-01 27-AUG-1999; 99US-01 30-AUG-1999: 99US-01	25-AUG-1999; 99US-0; 26-AUG-1999; 99US-0; 27-AUG-1999; 99US-0;	20-AUG-1999; 99US-0; 23-AUG-1999; 99US-0; 23-AUG-1999; 99US-0;	18-AUG-1999; 99US-0 20-AUG-1999; 99US-0 20-AUG-1999; 99US-0	PR 16-AUG-1999; 99US-0	12-AUG-1999; 99US-0 13-AUG-1999; 99US-0 13-AUG-1999; 99US-0	10-AUG-1999; 99US-0 11-AUG-1999; 99US-0	09-AUG-1999; 99US-0	06-AUG-1999; 99US-0 06-AUG-1999; 99US-0	05-AUG-1999; 99US-0	04-AUG-1999; 99US-0	02-AUG-1999; 99US-0 02-AUG-1999; 99US-0	28-JUL-1999; 99US-0 02-AUG-1999; 99US-0	27-JUL-1999; 99US-0 27-JUL-1999; 99US-0	26-JUL-1999; 99US-C	23-JUL-1999; 99US-C	22-JUL-1999; 99US-(22-JUL-1999; 99US-(23-JUL-1999; 99US-(
14 - CCT - 1999; 990; 14 - CCT - 1999; 990; 14 - CCT - 1999; 990; 18 - CCT - 1999; 990; 21 - CCT - 1999; 990; 21 - CCT - 1999; 990;	13-OCT-1999; 99US-01 13-OCT-1999; 99US-01 14-OCT-1999; 99US-01 14-OCT-1999; 99US-01	07-OCT-1999; 99US-01 08-OCT-1999; 99US-01 12-OCT-1999; 99US-01 13-OCT-1999; 99US-01	29-SEP-1999; 99US-01 04-OCT-1999; 99US-01 05-OCT-1999; 99US-01 06-OCT-1999; 99US-01	23-SEP-1999; 99US-01 24-SEP-1999; 99US-01 28-SEP-1999; 99US-01	20-SEP-1999; 99US-01 22-SEP-1999; 99US-01	13-SEP-1999; 99US-01 15-SEP-1999; 99US-01 16-SEP-1999; 99US-01	07-SEP-1999; 99US-01 10-SEP-1999; 99US-01	31-AUG-1999; 99US-01 01-SEP-1999; 99US-01	27-AUG-1999; 99US-01 27-AUG-1999; 99US-01 30-AUG-1999: 99US-01	25-AUG-1999; 99US-0; 26-AUG-1999; 99US-0; 27-AUG-1999; 99US-0;	20-AUG-1999; 99US-0; 23-AUG-1999; 99US-0; 23-AUG-1999; 99US-0;	18-AUG-1999; 99US-0 20-AUG-1999; 99US-0 20-AUG-1999; 99US-0	PR 16-AUG-1999; 99US-0	12-AUG-1999; 99US-0 13-AUG-1999; 99US-0 13-AUG-1999; 99US-0	10-AUG-1999; 99US-0 11-AUG-1999; 99US-0	09-AUG-1999; 99US-0	06-AUG-1999; 99US-0 06-AUG-1999; 99US-0	05-AUG-1999; 99US-0	04-AUG-1999; 99US-0	02-AUG-1999; 99US-0 02-AUG-1999; 99US-0	28-JUL-1999; 99US-0 02-AUG-1999; 99US-0	27-JUL-1999; 99US-0 27-JUL-1999; 99US-0	26-JUL-1999; 99US-C	23-JUL-1999; 99US-C	22-JUL-1999; 99US-(22-JUL-1999; 99US-(23-JUL-1999; 99US-(

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  25-FEB-1999
05-MAR-1999
23-MAR-1999
25-MAR-1999
25-MAR-1999
06-APR-1999
06-APR-1999
16-APR-1999
11-APR-1999
21-APR-1999
21-APR-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          06-SEP-2000
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Similarity 100.0%;
7; Conservative (
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  99US-0121825.
99US-012548.
99US-0125788.
99US-0126785.
99US-0127462.
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99US-013049.
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99US-0130449.
99US-0131449.
99US-0132486.
99US-0132485.
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99US-0160814.
99US-0160880.
99US-0160980.
99US-0160989.
99US-0161404.
99US-0161406.
99US-0161359.
99US-0161350.
99US-0161361.
99US-0161361.
99US-0161920.
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99US-0161920.
99US-0161920.
99US-0161920.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
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promoter;
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114 - MAY 1999
118 - MAY 1999
220 - MAY 1999
221 - MAY 1999
221 - MAY 1999
222 - MAY 1999
223 - MAY 1999
224 - MAY 1999
225 - MAY 1999
227 - MAY 1999
227 - MAY 1999
237 - JUN 1999
248 - JUN 1999
258 - JUN 1999
259 - JUN 1999
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269 - JUN 1999
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276 - JUL 1999
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9908-0134221
9908-0134768
9908-0135523
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27-JUL-1999; 27-JUL-1999; 27-JUL-1999; 28-JUL-1999; 02-AUG-1999; 02-AUG-1999; 02-AUG-1999; 03-AUG-1999; 03-AUG-1999;

04-AUG-1999; 04-AUG-1999; 05-AUG-1999; 05-AUG-1999; 06-AUG-1999; 06-AUG-1999;

09-AUG

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RESULT
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Best Local S
Matches 7
25-FEB-1999

05-MAR-1999

23-MAR-1999

25-MAR-1999

25-MAR-1999

29-MAR-1999

01-APR-1999

08-APR-1999

16-APR-1999

21-APR-1999

21-APR-1999

23-APR-1999

23-APR-1999

23-APR-1999

24-APR-1999

25-APR-1999

26-APR-1999

27-MAY-1999

06-MAY-1999

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|||||||
|36 rvlvqdg 342
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     standard; Protein; 548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               h 85.0%;
Similarity 100.0%;
7; Conservative (
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99US-0121825

99US-0123548

99US-0125788

99US-0126785

99US-0126785

99US-0128714

99US-0128714

99US-0130449

99US-0130449

99US-0130449

99US-013049

99US-013049

99US-013049

99US-013248

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99US-0134768
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99US-0161359.
99US-0161350.
99US-0161361.
99US-0161361.
99US-0161920.
99US-0161992.
99US-0161993.
99US-0161993.
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27-AUG-1999; 30-AUG-1999; 31-AUG-1999; 01-SEP-1999; 07-SEP-1999;

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116-AUG-1999 117-AUG-1999 20-AUG-1999 20-A	03-AUG-1999; 99US-014 04-AUG-1999; 99US-014 05-AUG-1999; 99US-014 05-AUG-1999; 99US-014 06-AUG-1999; 99US-014 06-AUG-1999; 99US-014 06-AUG-1999; 99US-014 06-AUG-1999; 99US-014 06-AUG-1999; 99US-014 06-AUG-1999; 99US-014 11-AUG-1999; 99US-014

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C(TU). The peptide antagonists are based on a common motif of Zor and human zonulins, which is believed to be critical for receptor binding. They can be prepared by Chemical synthesis or by use of Crecombinant DNA techniques. The peptide antagonists are used as an artificial manatory agents in the treatment of gastrointestinal inflammation, where they bind to the Zor receptor in the intestine C and yet does not physiologically modulate the opening of TJ in the Cincessed intestinal permeability and the peptide is useful for treating intestinal conditions that cause protein losing enteropathy caused by infection, e.g. Clostridium difficile infection, enterocolitis, shigellosis, viral gastroenteritis, parasite infestation, bacterial overgrowth whipple's disease, diseases with collagenous colitis, inflammatory bowel disease, diseases marked by lymphatic obstruction, e.g. congenital intestinal lymphangiectasia, correction of congenital heart disease with Fontan's operation,
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Y79107
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                                                                                                                                                                                                                                                                                                        This present sequence is that of a peptide antagonist of zonulin (2), one of 25 such peptides (see Y79105-29) of the invention, which bind to a zonula occludens toxin (ZOT) receptor, yet do not physiologically modulate the opening of mammalian tight junctions
                                                                                                                                                                                                                                                                                                                                                                                                                      New peptide antagonist of zonulin useful as antiinflammatory agent for treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis
                                                                                                                                                                                                                                                                                                                                                                                               Claim 1; Page 41; 69pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2000-205565/18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            blood-brain barrier; antiinflammatory; cerebroprotective; neuroprotective; dermatological; antiulcer; antiviral; antibacterial; cytostatic; anti-HTV; vulnerary; antiallergic; hypotensive; immunosuppressive; antiparasitic; vasotropic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Zonulin; antagonist; zonula occludens toxin receptor; blood-brain barrier; antiinflammatory; cerebroprotect
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (UYMA-) UNIV MARYLAND BALTIMORE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   03-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               gastrointestinal inflammation; therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   28-JUL-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Peptide antagonist of zonulin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    05-JUN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Y79107 standard; Peptide; 8 AA
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29-OCT-1999;
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|rvlvqdg 362
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99US-0162142
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100.0%; F
tive 0;
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71;
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RESULT
Y79116
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Best Local Similarity
""tches 7; Conserv:
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 (TJ). The peptide antagonists are based on a common motif of 207 and human zonulins, which is believed to be critical for receptor recombinating. They can be prepared by chemical synthesis or by use of antiinflammattory agents in the treatment of gastrointestinal inflammation, where they bind to the 207 receptor in the intestine and yet does not physiologically modulate the opening of TJ in the intestine. Gastrointestinal permeability and the peptide is useful for caused intestinal conditions that cause protein losing enteropathy enterocolitis, shigellosis, viral gastroenteritis, parasite infestation, bacterial
                                                                                                                                                                                 This present sequence is that of a peptide antagonist of zonulin (Z), one of 25 such peptides (see Y79105-29) of the invention, which bind to a zonula occludens toxin (ZOT) receptor, yet do not physiologically modulate the opening of mammalian tight junctions
                                                                                                                                                                                                                                                             Claim 1; Page 44; 69pp; English.
                                                                                                                                                                                                                                                                                      New peptide antagonist of zonulin useful as antiinflammatory agent treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                hypotensive; immu gastrointestinal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       neuroprotective; dermatological; antiulcer; antiviral; antibacterial; cytostatic; anti-HIV; vulnerary; antiallergic; hypotensive; immunosuppressive; antiparasitic; vasotropic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              28-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Zonulin; antagonist; zonula occludens toxin receptor; blood brain barrier; antiinflammatory; cerebroprotect
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Y79116 standard; Peptide; 8 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 mucosal diseases without ulceration, e.g. Menetrier's disease, coeliac disease, eosinophilic gastroenteritis, and immune diseases, e.g. systemic lupus erythematosus or food allergies, primarily to milk.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                              98US-0127815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99WO-US16683.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            inflammation; therapy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         82.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 33;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
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This present sequence is that of a peptide antagonist of zonulin (2), one of 25 such peptides (see Y79105-29) of the invention, which bind to a zonula occludens toxin (ZOT) receptor, yet do not physiologically modulate the opening of mammalian tight junctions (TJ). The peptide antagonists are based on a common motif of ZOT and human zonulins, which is believed to be critical for receptor binding. They can be prepared by chemical synthesis or by use of recombinant DNA techniques. The peptide antagonists are used as an antiinflammatory agents in the treatment of gastrointestinal inflammation, where they bind to the ZOT receptor in the intestine and yet does not physiologically modulate the opening of TJ in the intestine. Gastrointestinal inflammation conditions give rise to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        mucosal erosion or ulcerations, e.g. gastritis, gastric cancer, collagenous colitis, inflammatory bowel disease, diseases marked by lymphartic obstruction, e.g. congenital intestinal lymphangiectasia, sarcoidosis lymphoma, mesenteric tuberculosis, and after surgical correction of congenital heart disease with Fontan's operation, mucosal diseases without ulceration, e.g. Menetrier's disease, coeliac disease, eosinophilic gastroenteritis, and immune diseases, e.g. systemic lupus erythematosus or food allergies, primarily to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        neuroprotective; ancilnflammatory; cerebroprotective; neuroprotective; dermatological; antiulcer; antiviral; antibacterial; cytostatic; anti-HIV; vulnerary; antiallergic; hypotensive; immunosuppressive; antiparasitic; vasotropic; gastrointestinal inflammation; therapy.
                                                                                                                                                                                                                                                             New peptide antagonist of zonulin useful as antiinflammatory agent treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis
                                                                                                                                                                                                                           Claim 1; Page 46; 69pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Zonulin; antagonist;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Peptide
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                                                                                                                                                                                                                                                            viral gastroenteritis,
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                                                                                                                                                                                                                                                                                                                                                                                                     MARYLAND BALTIMORE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              zonula occludens toxin receptor;
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87.5%;
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RESULT
G05180
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Best Local S
Matches 7
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09-MAR-1999

23-MAR-1999

25-MAR-1999

01-APR-1999

01-APR-1999

16-APR-1999

16-APR-1999

16-APR-1999

23-APR-1999

24-APR-1999

25-APR-1999

30-APR-1999

30-AP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      mucosal erosion or ulcerations, e.g. gastritis, gastric cancer, collagenous colitis, inflammatory bowel disease, diseases marked by lymphatic obstruction, e.g. congenital intestinal lymphangiectasia, sarcoidosis lymphoma, mesenteric tuberculosis, and after surgical correction of congenital heart disease with Fontan's operation, mucosal diseases without ulceration, e.g. Menetrier's disease, coeliac disease, eosinophilic gastroenteritis, and immune diseases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   increased intestinal permeability and the peptide is useful for treating intestinal conditions that cause protein losing enterol caused by infection, e.g. Clostridium difficile infection, enterocolitis, shigellosis, viral gastroenteritis, parasite infestation, bacterial overgrowth, whipple's disease, diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Arabidopsis thaliana
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Protein identification; signal transduction pathway; metabolic pathway; hybridisation assay; genetic mapping; gene expression control; promoter;
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87.5%;
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Pred. No. 3.26
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3.2e+05;
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99US-0139454 99US-0139456 99US-0139456 99US-0139460 99US-0139461 99US-0139461 99US-0139760 99US-0139763 99US-0140695 99US-0140695 99US-0140695 99US-0140695 99US-0140823 99US-0140823 99US-0142085 99US-0142085 99US-0142085 99US-0142803 99US-0142803 99US-0142803 99US-01442813 99US-0144331	00000000000000000000000000000000000000
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16-AUG-1999 17-AUG-1999 18-AUG-1999 20-AUG-1999 20-AUG-1999 20-AUG-1999 23-AUG-1999 25-AUG-1999 27-AUG-1999 27-AUG-1999 31-AUG-1999 31-AUG-1999 31-AUG-1999 31-AUG-1999 31-AUG-1999 31-AUG-1999 31-AUG-1999 27-AUG-1999 31-AUG-1999 31-AUG	26-JUL-1999; R 27-JUL-1999; R 27-JUL-1999; R 28-JUL-1999; R 28-JUL-1999; R 28-JUL-1999; R 02-AUG-1999; R 02-AUG-1999; R 03-AUG-1999; R 04-AUG-1999; R 04-AUG-1999; R 05-AUG-1999; R 06-AUG-1999; R 07-AUG-1999; R 07-AUG-1999; R 08-AUG-1999; R 113-AUG-1999; R 113-AUG-1999; R 113-AUG-1999;
16-AuG-1999; 991 17-AuG-1999; 991 20-AuG-1999; 991 20-AuG-1999; 991 20-AuG-1999; 991 23-AuG-1999; 991 23-AuG-1999; 991 23-AuG-1999; 991 23-AuG-1999; 991 27-AuG-1999; 991 28-SEP-1999; 991 29-SEP-1999; 991 29-SEP-1999; 991 29-SEP-1999; 991 21-OCT-1999; 991 22-OCT-1999; 991 22-OCT-1999; 991	R 26-JUL-1999; 999 R 27-JUL-1999; 999 R 27-JUL-1999; 999 R 28-JUL-1999; 999 R 02-AUG-1999; 999 R 04-AUG-1999; 999 R 05-AUG-1999; 999 R 05-AUG-1999; 999 R 06-AUG-1999; 999 R 11-AUG-1999; 999 R 11-AUG-1999
16-Aug-1999 17-Aug-1999 18-Aug-1999 18-Aug-1999 199US-0 20-Aug-1999 199US-0 20-Aug-1999 199US-0 23-Aug-1999 199US-0 25-Aug-1999 199US-0 26-Aug-1999 199US-0 27-Aug-1999 199US-0 27-Aug-199	R 26-JUL-1999; 99US-0 R 27-JUL-1999; 99US-0 R 27-JUL-1999; 99US-0 R 28-JUL-1999; 99US-0 R 38-JUL-1999; 99US-0 R 38-JUL-1999; 99US-0 R 11-AUG-1999; 99US-0
16-Aug-1999; 99US-0149368 17-Aug-1999; 99US-0149368 17-Aug-1999; 99US-0149368 20-Aug-1999; 99US-0149732 20-Aug-1999; 99US-0149732 20-Aug-1999; 99US-0149932 23-Aug-1999; 99US-0150666 26-Aug-1999; 99US-0151066 27-Aug-1999; 99US-0151066 27-Aug-1999; 99US-0151066 27-Aug-1999; 99US-0151066 27-Aug-1999; 99US-0151066 27-Aug-1999; 99US-0151060 30-Aug-1999; 99US-0151080 31-Aug-1999; 99US-	R 26-JUL-1999; 99US-0145 R 27-JUL-1999; 99US-0145 RR 27-JUL-1999; 99US-0145 RR 27-JUL-1999; 99US-0146 RR 28-JUL-1999; 99US-0146 RR 02-AUG-1999; 99US-0147 RR 03-AUG-1999; 99US-0147 RR 04-AUG-1999; 99US-0147 RR 05-AUG-1999; 99US-0147 RR 05-AUG-1999; 99US-0147 RR 06-AUG-1999; 99US-0147 RR 07-AUG-1999; 99US-0147 RR 07-AUG-1999; 99US-0147 RR 07-AUG-1999; 99US-0148 RR 11-AUG-1999; 99US-0148
16-Aug-1999; 99US-0149368 17-Aug-1999; 99US-0149368 17-Aug-1999; 99US-0149368 20-Aug-1999; 99US-0149732 20-Aug-1999; 99US-0149732 20-Aug-1999; 99US-0149932 23-Aug-1999; 99US-0150666 26-Aug-1999; 99US-0151066 27-Aug-1999; 99US-0151066 27-Aug-1999; 99US-0151066 27-Aug-1999; 99US-0151066 27-Aug-1999; 99US-0151066 27-Aug-1999; 99US-0151060 30-Aug-1999; 99US-0151080 31-Aug-1999; 99US-	R 26-JUL-1999; 99US-014527 R 27-JUL-1999; 99US-014591; R 27-JUL-1999; 99US-014591; R 27-JUL-1999; 99US-014591; R 28-JUL-1999; 99US-014638; R 02-AUG-1999; 99US-014638; R 02-AUG-1999; 99US-014703; R 03-AUG-1999; 99US-014703; R 03-AUG-1999; 99US-014730; R 04-AUG-1999; 99US-014730; R 05-AUG-1999; 99US-014730; R 06-AUG-1999; 99US-014730; R 06-AUG-1999; 99US-014741; R 06-AUG-1999; 99US-014831; R 11-AUG-1999; 99US-014831; R 11-AUG-1999; 99US-014831; R 11-AUG-1999; 99US-014831; R 11-AUG-1999; 99US-014831;

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RESULT
G36079
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Best Local S
Matches 7
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09-MAR 1999

23-MAR 1999

25-MAR 1999

25-MAR 1999

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01-APR 1999

16-APR 1999

11-APR 1999

23-APR 1999

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9908-0125788

9908-0126664

9908-0127462

9908-0128714

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9908-0128045

9908-0130077

9908-0130071

9908-013049

9908-013149

9908-013149

9908-013284

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99US-0161361.
99US-0161920.
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99US-0161993.
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87.5%;
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Pred. No. 27;
0; Mismatches
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18-JUN-1999
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14-JUN-1999;
16-JUN-1999;
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9908-0135629
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9908-0137502
9908-0137502
9908-0137502
9908-013840
9908-0139452
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02-AUG 03-AUG 04-AUG 04-AUG 05-AUG 05-AUG 06-AUG 06-AUG 09-AUG

18-AUG-1999; 20-AUG-1999;

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Best Local S
Matches 7
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06-MAY-1999
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09-MAR-1999;
23-MAR-1999;
25-MAR-1999;
25-MAR-1999;
01-APR-1999;
06-APR-1999;
06-APR-1999;
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28-OCT-1999;
29-OCT-1999;
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| 47 grvlvvdg
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990S-0129845
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990S-0126264
990S-0126785
990S-0127462
990S-0128234
990S-0128714
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99US-0123180.
99US-0123548.
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99US-0161993.
99US-0162142.
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87.5%;
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; Pred. No. 29;
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         Similarity 87.97; Conservative
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Qy 1 GRVLVQDG 8
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Search completed: June 13, 2001, 14:14:32
Job time: 373 sec

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Title:
Perfect score:
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A: Nolecule type: DNA
A: Molecule type: DNA
A: Residues: 1-161 <PLU>
A: Residues: 1-161 <PLU>
A: Residues: 1-161 <PLU>
A: Residues: 1-161 <PLU>
A: Cross-references: EMBL:L19201; NID:g304961; PIDN:AAB03061.1; PID:g305032
A: Note: the nucleotide sequence was submitted to the EMBL Data Library, October 1993
A: Note: the nucleotide sequence was submitted to the EMBL Data Library, October 1993
A: Blattner, F.R.; Plunkett III, G.; Bloch, C.A.; Perna, N.T.; Burland, V.; Riley, M.;
R: Blattner, F.R.; Plunkett III, G.; Bloch, C.A.; Perna, N.T.; Burland, V.; Riley, M.;
                                                                                                                                                                                                                                                                                                                                              2-demethylmenaquinone 2-C-methyltransferase (EC 2.1.1.-) menG [validated] - Escherich RyAlternate names: hypothetical protein fl61; menaquinone biosynthesis protein menG; C;Species: Escherichia coli C;Date: 19-May-1994 #sequence_revision 01-Sep-1995 #text_change 02-Sep-2000 C;Accession: S40872; D65199; T48648 R;Plunkett III, G.; Burland, Y.; Daniels, D.L.; Blattner, F.R. Nucleic Acids Res. 21, 3391-3398, 1993 N;File: Analysis of the Escherichia coli genome. III. DNA sequence of the region fro A;File: Analysis of the Escherichia coli genome. III. DNA sequence of the region fro
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R;White, O.; Eisen, J.A.; Heidelberg, J.F.; Hickey, E.K.; Peterson, J.D.; Dodson, R. M.; Shen, M.; Vamathevan, J.J.; Lam, P.; McDonald, L.; Utterback, T.; Zalewski, C. S.; Smith, H.O.; Venter, J.C.; Fraser, C.M. Science 286, 1571-1577, 1999
A;Title: Genome sequence of the radioresistant bacterium Deinococcus radiodurans R1. A;Reference number: A75250; MUID:20038896
A;Accession: A75466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2-demethylmenaquinone 2-C-methyltransferase (EC 2.1.1.-) DR0859 [similarity] - C;Species: Deinococcus radiodurans
C;Date: 03-Dec-1999 #sequence_revision 03-Dec-1999 #text_change 02-Sep-2000
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C; Keywords: methyltransferase
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A;Residues: 1-160 <WHI>
A;Cross-references: GB:AE001940; GB:AE000513; NID:g6458577; PIDN:AAF10437.1; PID:g645
A;Experimental source: strain Rl
                                                                                                                                                                                                                                                                                   A; Reference number: $40802; MUID:93347969 A; Accession: $40872
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                                                                                                                                                                                                                                                A; Status: preliminary; nucleic acid sequence not shown; translation
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A;Pathway: cysteine biosynthesis
A;Note: rate-limiting step
C;Superfamily: Bacillus serine acetyltransferase; serine
C;Keywords: acyltransferase; coenzyme A
F;9-169/Domain: serine acetyltransferase homology <SAT>
   В
                                Q
                                                                                                                                                                                                                                           A; Gene: cysE
C; Function:
                                                                                                                                                                                                                                                                                        A; Molecule type: DNA
A; Residues: 1-225 <GAG>
                                                                                                                                                                                                                                                                                                                                                                                                                                                   serine O-acetyltransferase (EC 2.3.1.30) cysE [similarity] - Bacillus stearothermophilus C;Date: 10-Sep_1999 #sequence_revision 10-Sep-1999 #text_change 05-May-2000
                                                                                                                                                                                                                                                                                                                     A;Status: preliminary; not compared with conceptual translation
                                                                                                                                                                                                                                                                                                                                           A:Reference number: A53402; MUID:94171772 A:Accession: E53402
                                                                                                                                                                                                                                                                                                                                                                                     C;Accession: E53402
R;Gagnon, Y.; Breton, R.; Putzer, H.; Pelchat, M.; Grunberg-Manago, J. Biol. Chem. 269, 7473-7482, 1994
A;Title: Clustering and co-transcription of the Bacillus subtilis g
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A; Residues: 1-161 <BLAT>
A; Cross references: GB: AE000467; GB: U00096; NID: g1790356;
A; Cross references: GB: AE010467; GB: U00096; NID: g1790356;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Reference number: A64720; MUID:97426617
A;Accession: D65199
A;Status: preliminaria
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Experimental source: strain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R;Hudapeth, M.E.S.; Suvarna, K.; Meganathan, R. submitted to the EMBL Data Library, April 1996 A;Description: Menaguinone biosynthesis: identification A;Reference number: Z24499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; Cross-references: EMBL: U56082; PIDN: AAB01208.1
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A; Residues: 1-161 <HUD>
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                                                                     Matches
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7; Conser
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R;Pajor, A.M.
R;Pajor, A.M.
J. Biol. Chem. 270, 5779-5785, 1995
A;Title: Sequence and functional characterization
A;Title: Sequence and functional characterization
A;Title: Sequence 146528; MUID:95197598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            sodium/dicarboxylate cotransporter - rabbit (fragment) C;Species: Oryctolagus cuniculus (domestic rabbit) C;Date: 14-Feb-1997 #sequence_revision 14-Feb-1997 #te
                                                                                                        C; Accession: I46528
                                                                                                                                                                                        RESULT
I46528
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         R;Klenk, H.P.; Clayton, R.A.; Tomb, J.F.; White, O.; Nelson, K.E.; Ketchum, Fleischmann, R.D.; Quackenbush, J.; Lee, N.H.; Sutton, G.G.; Gill, S.; Ki Glodek, A.; Zhou, L.; Overbeek, R.; Gocayne, J.D.; Weidman, J.F.; McDonald,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4-hydroxybutyrate CoA transferase (cat2-1) homolog - Archaeoglobus fulgidus c;Speciles: Archaeoglobus fulgidus C;Date: 05-Dec1997 #sequence_revision 05-Dec-1997 #text_change 17-Mar-2000 C;Accession: H69392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; Molecule type: DNA
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A;Residues: 1-340,'N',342-355 <DIS2>
A;Cross-references: GB:Y00459; NID:g1621271; PIDN:CAA68514.1;
C;Superfamily: mannose-1-phosphate guanylyltransferase
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N;Alternate names: hypothetical hexose nucleotidylating enzyme
C;Species: Streptomyces griseus
C;Date: 20-Feb-1993 #sequence_revision 20-Feb-1993 #text_change
C;Accession: A26984; A43701
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A;Residues: 1-355 <DIS>
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A;Accession: I46528
A;Status: preliminary; translated from GB/EMBL
A;Molecule type: mRNA
A;Residues: 1-593 <PAJD
A;Cross-references: EMBL:U12186; NID:g758383;
C;Superfamily: sodium/sulfate cotransporter
                                                                                                                                                                                                                                                                                    R;Fleischmann, R.D.; Adams, M.D.; White, O.; Clayton, R.A.; Kirkness, E.F.; Kerlavage, Gocayne, J.D.; Scott, J.; Shirley, R.; Liu, L.I.; Glodek, A.; Kelley, J.M.; Weidman, D.M.; Brandon, R.C.; Flie, L.D.; Fritchman, J.L.; Fuhrmann, J.L.; Geoghagen, N.S.M. Science 269, 496-512, 1995
                                                                                                                                                                                                                                                                                                                                                                               2-demethylmenaquinone 2-C-methyltransferase (EC 2.1.1.-) HI0508 [similarity] C;Species: Haemophilus influenzae C;Date: 18-Aug-1995 #sequence_revision 18-Aug-1995 #text_change 02-Sep-2000
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submitted to the EMBL Data Library, April
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                                                                                            A;Cross-references: GB:U32732; GB:L42023; NID:g1573480; PIDN:AAC22166.1; A;Note: best homolog was a hypothetical protein from Escherichia coli C;Keywords: methyltransferase
                                                                                                                                                        A; Molecule type: DNA
A; Residues: 1-162 <TIGR>
                                                                                                                                                                                                           A;Authors: Gnehm, C.L.; McDonald, L.A.; Small, K.V.; Fraser, C.M.; Smith, H.O.; Venter, A;Title: Whole-genome random sequencing and assembly of Haemophilus influenzae Rd. A;Reference number: A64000; MUID:95350630
A;Recession: G64153
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A; Residues: 1-893 <WUX>
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A;Experimental source: strain Bristol N2; clone T05E8
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A;Cross references: EMBL:D26185; NID:g467326; PIDN:BAA05327.1; PID:g467481
A;Note: the nucleotide sequence was submitted to the EMBL Data Library, December 1993
A;Note: the nucleotide sequence was submitted to the EMBL Data Library, December 1993
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A;Authors: Foulger, D.; Fritz, C.; Fujita, M.; Fujita, Y.; Fuma, S.; Galizzi, A.; Gal
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Koetter, P.; Koningstein, G.; Krogh, S.; Kumano, M.; Kurita, K.; Lapidus, A.; Lardino
A;Authors: Lauber, J.; Lazarevic, V.; Lee, S.M.; Levine, A.; Liu, H.; Masuda, S.; Mau
y, M.; Ogawa, K.; Ogiwara, A.; Oudega, B.; Park, S.H.; Parro, V.; Pohl, T.M.; Portete
Rieger, M.; Rivolta, C.; Rocha, E.; Roche, B.; Rose, M.; Sadaie, Y.; Sato, T.; Scanl
A;Authors: Schleich, S.; Schroeter, R.; Scoffone, F.; Sekiguchi, J.; Sekowska, A.; Se
akeuchi, M.; Tamakoshi, A.; Tanaka, T.; Terpstra, P.; Tognoni, A.; Tosato, V.; Uchiya
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Cross-references: GB:L14580; NID:g289278; R;Ogasawara, N.; Nakai, S.; Yoshikawa, H. DNA Res. 1, 1-14, 1994
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C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 16-C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 16-C;Accession: B53402; S65122; G69611
R;Gagnon, Y.; Breton, R.; Putzer, H.; Pelchat, M.; Grunberg-Manago, J. Biol. Chem. 269, 7473-7482, 1994
A;Title: Clustering and co-transcription of the Bacillus subtilis ga
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Science 277, 1453-1462, 1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ferripyochelin-binding protein homolog b1400 - Escherichia coli
C;Species: Escherichia coli
C;Date: 12-Sep-1997 #sequence_revision 17-Sep-1997 #text_change 24-Sep-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
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A;Experimental source: strain K-12, substrain MG1655
C;Superfamily: ferripyochelin binding protein
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A; Residues: 1-196 <BLAT>
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A; Residues: 1-217 <OGA>
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20;
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R;Yoshikawa, N.; Imaizumi, M.; Takahashi, J. Gen. Virol. 74, 2743-2747, 193
A;Title: Striking similarities between the A;Reference number: PQ0864; MUID:94103780
                                                                       hypothetical 36.2K protein - citrus tatter leaf virus N;Alternate names: ORF2 protein C;Species: citrus tatter leaf virus C;Species: citrus tatter leaf virus C;Date: 14-Jul-1994 #sequence_revision 14-Jul-1994 #text_change 20-Jun-2000 C;Accession: JQ2398
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A; Gene:
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A; Residues: 1-310 <STO>
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R;Stover, C.K.; Pham, X.Q.; Erwin, A.L.; Mizoguchi, S.D.; adman, S.; Yuan, Y.; Brody, L.L.; Coulter, S.N.; Folger,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       hypothetical protein PA3036 [imported] - Pseudomonas aeruginosa (strain PAO) C;Species: Pseudomonas aeruginosa C;Species: 15-Sep-2000 #sequence_revision 15-Sep-2000 #text_change 31-Dec-2000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Nature 406, 959-964, 2000
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C; Function:
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A;Accession: G69611
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A; Residues: 1-217 <KUN>
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les 6; Conservative
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Pred. No. 23;
2; Mismatches
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                                                     T.; Inouye,
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K.R.; Kas,
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Larbig,
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zona occludens toxin VC1458 [imported] - Vibrio cholerae (group C;Species: Vibrio cholerae C;Date: 18-Aug-2000 #sequence_revision 20-Aug-2000 #text_change C;Date: 18-Aug-2000 #sequence_revision 20-Aug-2000 #text_change C;Accession: B82197
R;Heidelberg, J.F.; Eisen, J.A.; Nelson, W.C.; Clayton, R.A.; Gw chardson, D.; Ermolaeva, M.D.; Vamathevan, J.; Bass, S.; Qin, H. 1, R.R.; Mekalanos, J.J.; Venter, J.C.; Fraser, C.M.
Nature 406, 477-483, 2000
                                                                                                                 A; Gene:
A; Map po
                                                                                                                                                                A;Cross-references: GB:AE004224; A;Experimental source: serogroup
                                                                                                                                                                                                A; Molecule type: DNA
A; Residues: 1-399 <HEI>
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A;Reference number: A82035;
A;Accession: B82197
A;Status: preliminary
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A;Accession: B44059
A;Status
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R;Yoshikawa, N.; Sasaki, E.; Kato, M.; Takahashi, Virology 191, 98-105, 1992
A;Title: The nucleotide sequence of apple stem gr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         36K protein - apple stem grooving virus (strain P-209) C:Species: apple stem grooving virus, ASGV C:Date: 03-Feb-1994 #sequence_revision 03-Feb-1994 #te
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A;Molecule type: genomic RNA
A;Residues: 1-320 <YOS>
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A;Residues: 1-320 <YOS>
A;Cross-references: DDbJ:D16368; NID:g464150; PIDN:BAA03870.1;
A;Experimental source: strain Li-23
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GRLCVQDG

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Ad3864

ZODULA OCCLIDENS toxin - Vibrio cholerae
C;Species: Vibrio cholerae
C;Species: Vibrio cholerae
C;Date: 10-Mar-1993 #sequence_revision 18-Nov-1994 #text_change 08-Oct-1999
C;Accession: Ad3864
R;Baudry, B.; Fasano, A.; Ketley, J.; Kaper, J.B.
Infect. Immun. 60, 428-434, 1992
A;Title: Cloning of a gene (zot) encoding a new toxin produced by Vibrio cholerae.
A;Reference number: Ad3864; MUID:92112300
A;Accession: Ad3864; MUID:92112300
A;Accession: Prediminary
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A;Ketles: prediminary
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Maximum Match 100%
Listing first 45 summaries
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Perfect score:
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Gapop 10.0 , Gapext 0.5
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YF05_METCH

YF05_METCH

YF00_SYNV3

DPV4_RAT

DPV4_RAT

DRT1_CALMI

DRT1_TALSAL

PODAN

YELF_YEAST

DRT1_TRASC

PYRE_PODAN

YELF_YEAST

DRT1_CHICK

SPDE_HVONI

SPDE_COFAR

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P55469
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Best Local :
                                            Oryctolagus cuniculus (Rabbit).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Lagomorpha; Leporidae; Oryctolagus.
                                                                                                                                                               RENAL SODIUM/DICARBOXYLATE COTRANSPORTER).
SLC13A2 OR NADC1 OR NADC-1.
                                                                                                                                                                                                                                                                01-NOV-1997 (Rel.
01-NOV-1997 (Rel.
01-NOV-1997 (Rel.
                                                                                                                                                                                                                                                                                                                                     Q28615;
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01-AUG-1988 (Rel. (
01-AUG-1988 (Rel. (
01-OCT-1996 (Rel. )
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Streptomycin blosynthesis; Transferase; Kinase; Nucleotidyltransferase.
SEQUENCE 355 AA; 38098 MW; ED136AEA854EB7DA
                                                                                                                                                                                                                                                                                                                                                                                                      NDC1_RABIT
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Bacteria; Firmicutes; Actinobacteria; Actinobacteridae;
Bacteria; Firmicutes; Actinobacteria; Actinobacteridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-AUG-1988 (Rel. 08, Created)
01-AUG-1988 (Rel. 08, Last sequence update)
01-OCT-1996 (Rel. 08, Last sequence update)
01-OCT-1996 (Rel. 34, Last annotation update)
GLUCOSE-1-PHOSPHATE THYMIDYLYLITRANSFERASE (EC 2.7.7.24) (DTDP-GLUCOSE
SYNTHASE) (DTDP-GLUCOSE PYROPHOSPHORYLASE) (SUGAR-NUCLEOTIDYLATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STREPTOMYCIN.
-!- CATALYTIC ACTIVITY: DTTP +
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"Gene cluster for
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SIMILARITY: BELONGS TO THE GLUCOSE-1-PHOSPHATE
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A., Mansouri K.,
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annotation update)
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                                         SEQUENCE FROM N.A.
STRAIN-RD / KW20 / ATCC 51907;
MEDLINE-95350630; PubMed-7542800;
MEDLINE-95350630; PubMed-7542800;
                                                                                                                                                          01-NOV-1995 (Rel. 32, Created)
01-NOV-1995 (Rel. 32, Last sequence update)
15-JUL-1998 (Rel. 36, Last annotation update)
S-ADENOSYLMETHIONINE:2-DEMETHYLMENAQUINONE ME
Fleischmann R.D., Adams M.D., White O., Clayton R.A., Kirkness Kerlavage A.R., Bult C.J., Tomb J.-F., Dougherty B.A., Merrick McKenney K., Sutton G., Fitzhugh W., Fields C.A., Gocayne J.D., Scott J.D., Shirley R., Liu L.-I., Glodek A., Kelley J.M.,
                                                                                                                   Haemophilus
Bacteria; Pı
                                                                                                                                        MENG OR HI0508.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           This SWISS-PROT entry is copyright. It is produced through a collab between the Swiss Institute of Bioinformatics and the EMBL outst the European Bioinformatics Institute. There are no restrictions use by non-profit institutions as long as its content is in modified and this statement is not removed. Usage by and for comentities requires a license agreement (See http://www.isb-sib.ch/anor send an email to license@isb-sib.ch).
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SUCCIANTE AND CUTRATE.

-!- SUBCELLULAR LOCATION: INTEGRAL MEMBRANE
-!- TISSUE SPECIFICITY: ABUNDANT IN KIDNEY A
-!- SIMILARITY: BELONGS TO THE NADC/P/PHO87
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sodium/dicarboxylate cotransporter.",
J. Biol. Chem. 270:5779-5785(1995).
-1- FUNCTION: COTRANSPORT OF SODIUM A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "Sequence and functional characterization of a renal
                                                                                                                                                                                                                                                                              367 GRVMVSDG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 InterPro; IPR001898;
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STRAIN-NEW ZEALAND WHITE;
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75.0%;
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Pred. No. 15;
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15;
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Best Local S
Matches 7
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P77181; 053020;
01-0CT-2000 (Rel. 4
01-0CT-2000 (Rel. 4
01-0CT-2000 (Rel. 4
PHENYLACETIC ACID I
                               MEDLINE-97251357; PubMed-9097039;
Alba H., Baba T., Fujita K., Hayashi K., Inada T., Isono K.,
Alba H., Baba T., Fujita K., Hayashi K., Kitakawa M.,
Itch T., Kasai H., Kashimoto K., Mimura S., Kitakawa M.,
Kitagawa M., Makino K., Miki T., Mizobuchi K., Mori H., Mori T.,
Motomura K., Nakade S., Nakamura Y., Nashimoto H., Nishio Y.,
Oshima T., Saito N., Sampei G., Seki Y., Sivasundaram S.,
Tagami H., Takeda J., Takemoto K., Takeuchi Y., Wada C.,
Yamamoto Y., Horiuchi T.,
"A 570-kb DNA sequence of the Escherichia coli K-12 genome
corresponding to the 28.0-40.1 min region on the linkage map.";
DNA Res. 3:363-377(1996).
                                                                                                                                                                                                                                                                                                                                                       MEDLINE-97426617; PubMed-9278503;
Blattner F.R., Plunkett G. III, Bloch C.A.,
Riley M., Collado-Vides J., Glasner J.D., RR
Gregor J., Davis N.W., Kirkpatrick H.A., Go
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STRAIN-K12 / MG1655;
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Gnehm C.L., McDonald
Venter J.C.;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           58
                                                                                                                                                                                                                                                                                                                                       B., Shao Y.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GRVLVQDG
                                                                                                                                                                                                                                                                                                  complete genome sequence 
nce 277:1453-1474(1997).
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162 AA; 17388
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     40, Created)
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DEGRADATION PROTEIN PAAY.
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, Nguyen D.T., Saudek D.M.,
Fuhrmann J.L., Geoghagen N
Small K.V., Fraser C.M., Si
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5.9;
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M., Brandon R.C.,
n N.S.M.,
, Smith H.O.,
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RESULT 6
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Best Local S
Matches 5
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01-JUN-1994
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01-FEB-1995
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VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE-96051385; PubMed-7584024;
Ogasawara N., Nakai S., Yoshikawa H.;
"Systematic sequencing of the 180 kilobase
subtilis chromosome containing the replicat
DNA Res. 1:1-14(1994).
-i- CATALYTIC ACTIVITY: ACETYL-COA + L-SERI
                                                                                                                                              "Clustering and co-transcription of the Bacillu encoding the aminoacyi-tRNA synthetases specifi for cysteine and the first enzyme for cysteine for cysteine 25. Biol. Chem. 269:7473-7482(1994).
                                                                                                                                                                                                                                                                                                       01-JUN-1994 (Rel. 29, Last sequence update)
01-FEB-1995 (Rel. 31, Last annotation update)
SERINE ACETYLTRANSFERASE (EC 2.3.1.30) (SAT).
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Lapointe J.;
                                                                                                                                                                                                              SEQUENCE FROM N.A.
MEDLINE=94171772; PubMed=7510287;
                                                                                                                                                                                                                                                           Bacillus subtilis.
Bacteria; Firmicutes; Ba
Bacillus/Staphylococcus
                                                                                                                                                                                                                                                                                            CYSE OR CYSA.
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SERINE.
PATHWAY: CYSTEINE BIOSYNTHESIS.
SUBCELLULAR LOCATION: CYTOPLASY
SUBCELLULAR EDELONGS TO THE CYST
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3; Mismatc
     THE CYSE/LACA/LPXA/NODL FAMILY
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V (IN STRAIN W)
N (IN STRAIN W)
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replication origin.";
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                (BY SIMILARITY)
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VPRT_ASGVP
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REMBL; D26185; BAA05327.1; -.
REMBL; D26185; BAA05327.1; -.
REMBL; Z99104; CAB11869.1; -.
REMBL; Z99104; CYSE.

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Matches
                                            ACT_SITE
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ACT_SITE
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MEDLINE-93033164; PubMed-1413530;
YOShikawa N. Sasaki E. Kato M.,
"The nucleotide sequence of apple
Virology 191:98-105(1992).
                                                                                                                                                                                                                                                                            EMBL; D14995; BAA03640.1; PIR; B44059; B44059. MEROPS; S35.001; -.
                 SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-JUN-1994 (Rel. 29, Created)
01-JUN-1994 (Rel. 29, Last sequence update)
01-OCT-1996 (Rel. 34, Last annotation update)
PUTATIVE 36 KDA SERINE PROTEASE (EC 3.4 21.-) (ORF2).
Apple stem grooving virus (strain P-209) (ASGV).
Viruses; ssRNA positive-strand viruses, no DNA stage; Capillovirus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the EM
                                                                                                                                                                                  PRINTS; PR00995;
                                                                                                                                                                                                                 Pfam;
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6; Conser
                                                                                                                                                                                                                                         IPR001815; -
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171
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5; CAPILLOPTASE.
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Pred. No. 8.1;
2; Mismatches
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Query Match

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RESULT 8

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                                                                   "Vibrio cholerae produces a second enterotoxin, intestinal tight junctions.";
Proc. Natl. Acad. Sci. U.S.A. 88:5242-5246(1991)
-!- FUNCTION: INCREASES THE PERMEABILITY OF THE BY AFFECTING THE STRUCTURE OF INTERCELLULAR
                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.

STRAIN-EL TOR N15961 / SEROTYPE 01;

MEDLINE-20406833; PubMed*-10952301;

Heidelberg J.F., Eisen J.A., Nelson W.C., Clayton R.A., Gwinn M.L.,

Dodson R.J., Haft D.H., Hickey E.K., Peterson J.D., Umayam L.A.,

Gill S.R., Nelson K.E., Read T.D., Tettelin H., Richardson D.

Ermolaeva M.D., Vamathevan J., Bass S., Qin H., Dragoi I., Sellers P.

McDonald L., Utterback T., Fleishmann R.D., Nierman W.C., White O.,

Salzberg S.L., Smith H.O., Colwell R.R., Mekalanos J.J., Venter J.C.,
                                                                                                                                                                                           MEDLINE-91271365; PubMed-2052603; Fasano A., Baudry B., Pumplin D.W., Ketley J.M., Kaper J.B.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ZOT_VIBCH S:
P38442; Q9L7Q6; (
01-OCT-1994 (Rel
01-OCT-2000 (Rel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Baudry B., Fasauc ....
"Cloning of a gene (zot)
"cloning of a gene (zot)
"cloning of a gene (zot)
                                                                                                                                                                                                                                                                       CHARACTERIZATION.
                                                                                                                                                                                                                                                                                                                                                  cholerae
                                                                                                                                                                                                                                                                                                                                                    "DNA sequence of both chromosomes cholerae.":
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Kan B., Liu Y.Q., Qi
Submitted (JAN-2000)
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MEDLING-92112300; PubMed-1730472;
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                                                       A. 88:5242-5246(1991).
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                                                                                               This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial
                                                                                                                                                                                                                                                                                                                                                   Smith D.R., Doucette-Stamm L.A., Deloughery C., Lee H.-M., Dubo Aldredge T., Bashirzadeh R., Blakely D., Cook R., Gilbert K., Harrison D., Hoang L., Keagle P., Lumm W., Pothier B., Qiu D., Spadafora R., Vicare R., Wang Y., Wierzbowski J., Gibson R., Jiwani N., Caruso A., Bush D., Safer H., Patwell D., Prabhakar McDougall S., Shimer G., Goyal A., Pietrovski S., Church G.M., Daniels C.J., Mao J.-I., Rice P., Nolling J., Reeve J.N.;
                                                                                                                                                                                                                                                                              "Complete genome sequence of Methanobacterium thermoautotrophicum deltaH: functional analysis and comparative genomics.";
J. Bacteriol. 179:7135-7155(1997).
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MEDLINE-97426617; PubMed-9278503;
Blattner F.R., Plunkett G. III, Bloch C.A.,
Riley M., Collado-Vides J., Glasner J.D., Ro
Gregor J., Davis N.W., Kirkpatrick H.A., Go
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Pfam; PF01685; ATZ_TRZ;
Hypothetical protein; Hy
SEQUENCE 427 AA; 4644
                          Hypothetical protein; Fimbria; SIGNAL 1 24 PC
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                                                   InterPro; IPR000259; -.
Pfam; PF00419; Fimbrial; 1
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                                                                               EcoGene; EG13709; ycbQ.
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Pred. No. 17;
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ode C.K., Mayhew G.F.
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                                                   SEQUENCE FROM N.A.
MEDLINE=98300335; PubMed=9636706;
Ford M.E., Sarkis G.J., Belanger A.E.,
"Genome structure of mycobacteriophage
                                                                                                                                                                                                                       _BPMD2
                                                 evolution.
                                                                                                               NCBI_TaxID=28369;
                                                                                                                                  Mycobacteriophage
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O64243;
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"DNA sequence, structure and gene expression a phage system for mycobacterial genetics.",
Mol. Microbiol. 7:395-405(1993).
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                              Mol. Biol. 279:143-164(1998).
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SWISS-PROT entry is copyright. It is produced through a collaboration en the Swiss Institute of Bioinformatics and the EMBL outstation -
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RESULT 14 DPY4_MOUSE

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                                                                                                                              Pfam; PF00744; Dihydrooratase; NON_TER 1 1
                                                                                                                                                                                                                                                                                        J. Neurosci. 16:6197-6207(1996).

-!- SUBCELLULAR LOCATION: CYTOPLASMIC (POTENTIAL).

-!- DEVELOPMENTAL STAGE: EXPRESSED TRANSIENTLY IN DEVELOPING
CORD AND SELECTIVELY IN THE POSTNATAL CEREBELLUM.

-!- SIMILARITY: BELONGS TO THE DEHYDROPYRIMIDINASE FAMILY.
 442
                                                                                                                                                                  EMBL; U52103; AAB03281.1; -. HSSP; P18316; 1KRC.
                                                                                                                                                                                                                                                                                                                                                             Wang L., Strittmatter S.M.;
"A family of rat CRMP genes is differentially expressed nervous system.";
J. Neurosci. 16:6197-6207(1996).
                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE=96424532; PubMed=8815901;
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa; Mammalia; Eutheria; NCBI_TaxID=10116;
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15-JUL-1998 (Rel. 36, Last sequence update)
15-JUL-1998 (Rel. 36, Last annotation update)
DIHYDROPYRIMIDINASE RELATED PROTEIN-4 (DRP-4)
MEDIATOR PROTEIN 3) (CRMP-3) (FRAGMENT).
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Q62951;
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                       1 GRVLVQDG 8
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Sciurognathi; Muridae; Murinae; Rat
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                                                       Rhizobium sp. (strain NGR234).
Plasmid sym pNGR234a.
Bacteria; Proteobacteria; alph.
Rhizobiaceae; Rhizobium.
NCBI_TaxID=394;
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MDP MUSCILUS;
Eukaryota; Mctazoa; Chordata;
Eukaryota; Mctazoa; Rodentia;
Mammalia; Eutheria; Rodentia;
MCBI_TaxID=10090;
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01-NOV-1997 (Rel. 35, Last sequence update)
01-NOV-1997 (Rel. 35, Last annotation update)
01-NOV-1997 (Rel. 35, Last annotation update)
PROBABLE ABC TRANSPORTER ATP-BINDING PROTEIN Y4GM
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Freiberg C.A.,
Perret X.;
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            Broughton W.J.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                       "Molecular basis of symbiosis between Rhizobium and legumes.";
Nature 387:394-401(1997).

-i- SIMILARITY: BELLONGS TO THE ATP-BINDING TRANSPORT PROTEIN F
                                                                                                                                                                                                                                                                                                                       EMBL; AE000075; AAB91687.1; ~.
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O9SAK4 PRELIMINARY; PRT;
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O1-MAY-2000 (TrEMBLrel. 13, Created)
                                                                                                                                                                                                Becker A., Rueberg S., Kuester H., Roxlau A.A., Keller M.,
Tvashina T., Cheng H., Walker G.C., Puehler A.;
"The 32-kilobase exp gene cluster of Rhizobium meliloti directing the
biosynthesis of galactoglucan: genetic organization and properties of
the encoded gene products.";
J. Bacteriol. 179:1375-1384 (1997).
EMBL; 279692; CAB01939.1; -.
INTERPRO; IPRO3215; -.
PFAM; PFO0529; H1VD; 1.
PFAM; PFO0529; H1VD; 1.
SEQUENCE 473 AA; 51479 MW; COC3B168D9C23D85 CRC64;
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STRAIN=RM2011;
MEDLINE=97175570; PubMed=9023225;
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Rhizobiaceae; Sinorhizobium
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01-MAY-1997
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"Analysis of a purified recombinant plant semialdehyde dehydrogenase, an enzyme of submitted (DEC-1998) to the EMBL/GenBank/EMBL, RAF17335; AAF23590.1; -. HSSP; P20000; 1AG8.
INTERPRO; IPR002086; -. IPRO0171; aldedh; 1. PROSITE; PS00070; ALDEHYDE_DEHYDR_CYS; UN PROSITE; PS00687; ALDEHYDE_DEHYDR_GLU; UN
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Submitted (MAY-1999) to the EMBL; AC007202; AAD30232.1
HSSP; P20000; IAG8.
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                                                                                                                                                                                            "Analysis of a puri
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01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-OCT-2000 (TrEMBLrel. 15, Last annotation update)
SUCCINIC SEMIALDEHYDE DEHYDROGENASE (EC 1.2.1.24).
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Theologis A.;
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Vysotskaia V.S., Schwartz J.R., Yu G., Toriumi M., Lenz C.,
Li J., Kremenetskaia I., Luros J., Lee J.M., Gonzalez A., A.
Araujo R., Chao Q., Conn L., Conway A.B., Dunn P., Hansen N
Huizar L., Kim C., Palm C., Rowley D., Shinn P., Walker M.,
Bavis R.W., Ecker J.R., Federspiel N.A., Theologis A.;
"Arabidopsis thaliana chromosome 1 BAC T8K14 sequence.";
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Magnoliophyta; eudicotyledons; core eudicots;
Brassicales; Brassicacese; Arabidopsis.
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PF000171; ALDEHYDE_DEHYDR_CYS; UNKNOWN_1.
TE; PS00687; ALDEHYDE_DEHYDR_GLU; UNKNOWN_1.
TE; PS00687; ALDEHYDE_DEHYDR_GLU; UNKNOWN_1.
NCE 509 AA; 54911 MW; 5259B694D5E316D2 CRC64;
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SEQUENCE FROM N.A., STRAIN-CV. COLUMBIA; Lin X., Kaul S., Town Ponning C.M., Koo H.,
                                                                                                                                                                                                             Q9M8R9 PRELIMINARY; ra., Q9M8R9; PRELIMINARY; ra., Q9M8R9; Q9M
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Q9RW10;
01-MAY-2000
                                                                                                                         Brassicales; Bra
NCBI_TaxID=3702;
                                                                                                                                   Eukaryota; Viridiplantae; Embryophyta; Trache Magnoliophyta; eudicotyledons; core eudicots; Brassicales; Brassicaceae; Arabidopsis.
                                                                                                                                                                                                     Arabidopsis thaliana
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "Genome Sequence of the Radioresistant Bacterium radiodurans R1.";
Science 286:1571-1577(1999).
EMBL; AE001940; AAF10437.1;
TIGR; DR0859; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE=20036896; PubMed=10567266;
White O., Elsen J.A., Heidelberg J.F., Hickey E.K., Peterson J.D.,
Dodson R.J., Haft D.H., Gwinn M.L., Nelson W.C., Richardson D.L.,
Moffat K.S., Qin H., Jiang L., Pamphile W., Crosby M., Shen M.,
Moffat K.S., Qin H., Jiang L., Pamphile W., Crosby M., Shen M.,
Vamathevan J.J., Lam P., McDonald L., Utterback T., Zalewski C.,
Makarova K.S., Aravind L., Daly M.J., Minton K.W., Fleischmann R.D.,
Ketchum K.A., Nelson K.E., Salzberg S., Smith H.O., Venter J.C.,
Fraser C.M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Transferase;
SEQUENCE 1
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Bacteria; Thermus/Deinococcus
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SEQUENCE 528
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60 AA; 16860 MW;
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                                        01-JAN-1998 (TrEMBLrel. 05, Created)
01-JAN-1998 (TrEMBLrel. 05, Last sequence update)
01-CCT-2000 (TrEMBLrel. 15, Last annotation update)
4-HVDROXYBUTYRATE COA TRANSFERASE (CAT2-1)
                                                                                                                                                                                                                                                                           Redenbach M., Kieser H.M., Denapaite D., Eichner A., Kinashi H., Hopwood D.A.; Kinashi H., Hopwood D.A.; "A set of ordered cosmids and a detailed genetic and the 8 Mb Streptomyces coelicolor A3(2) chromosome."; Mol. Microbiol. 21:77-96(1996).
EMBL; AL158060; CAB76308.1; -.
                                                                                                                                                                                                                                                                                                                                 STRAIN-A3(2);
Redenbach M.,
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Thomson N.R., Parkhill J.,
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01-CCT-2000 (TrEMBLrel. 15, Last sequence update)
01-CCT-2000 (TrEMBLrel. 15, Last annotation update)
HYPOTHETICAL 26.2 KDA PROTEIN.
         Archaeoglobus fulgidus.
Archaea; Euryarchaeota;
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Submitted (MAR-2000)
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e EMBL/GenBank/DDBJ databases
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MEDLINE-98049343; PubMed-9389475;

Klenk H.-P., Clayton R.A., Tomb J.-F., White O., Nelson K.E.,

Klenk H.-P., Clayton R.A., Tomb J.-F., White O., Nelson K.E.,

Ketchum K.A., Dodson R.J., Gwinn M., Hickey E.K., Peterson J.D.,

Richardson D.L., Kerlavage A.R., Graham D.E., Kyrpides N.C.,

Fleischmann R.D., Quackenbush J., Lee N.H., Sutton G.G., Gill S.,

Fleischmann R.D., Ougherty B.A., McKenney K., Adams M.D., Loftus B.,

Peterson S., Reich C.I., McNeil L.K., Badger J.H., Glodek A., Zhou L.,

Overbeek R., Gocayne J.D., Weidman J.F., McDonald L., Utterback T.,

Cotton M.D., Spriggs T., Artiach P., Kaine B.P., Sykes S.M.,

Sadow P.W., D'Andrea K.P., Bowman C., Fujii C., Garland S.A.,

Mason T.M., Olsen G.J., Fraser C.M., Smith H.O., Woese C.R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Drosophila melanogaster (Fruit fly).
Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta;
Pterygota; Neoptera; Endopterygota; Diptera; Brachycera; Musc
Ephydroidea; Drosophilidae; Drosophila.
NCBI_TaxID-7227;
                                                                                                                                                                                                                                                                                                                                                                                                                          "Molecular structure of the lozenge gene of Drosophila melanogaster."; Submitted (DEC-1999) to the EMBL/GenBank/DDBJ databases.
EMBL; AF217651; AAF35310.1; -.
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Hypothetical protein; Transferase.
SEQUENCE 482 AA; 54018 MW; 895ADBD410E1CAF8 CRC64;
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Nature 390:364-370(1997).
EMBL; AE001025; AAB90101.1; -.
TIGR; AF1145; -.
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Behan K.J., Nichols C.;
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                                               EMBL; D14455; BAA03352.1;
INTERPRO; IPRO01815; -...
PFAM; PF02103; Peptidase_:
                                                                                                                                                       MEDLINE=94353644; PubMed=8073638; Ohira K., Ito T., Kawai A., Namba "Nucleotide sequence of the 3'-te
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRAIN-BRISTOL N2;
MEDLINE-94150718; PubMed-7906398;
MEDLINE-94150718; PubMed-7906398;
MISON R., Ainscough R., Anderson K., Baynes C., Berks M.,
Bonfield J., Burton J., Connell M., Copsey T., Cooper J., Coulson A
Craxton M., Dear S., Du Z., Durbin R., Favello A., Fulton L.,
Gardner A., Green P., Hawkins T., Hillier L., Jier M., Johnston L.,
Jones M., Kershaw J., Kirsten J., Laister N., Latreille P.,
Lightning J., Lloyd C., Mcmurray A., Mortimore B., O'Callaghan M.,
Parsons J., Percy C., Rifken L., Roopra A., Saunders D., Shownkeen
Smaldon N., Smith A., Sonnhammer E., Staden R., Sulston J.,
Thierry-Mieg J., Thomas K., Vaudin M., Vaughan K., Waterston R.,
Watson A., Weinstock L., Wilkinson-Sproat J., Wohldman P.;
Watson A., Weinstock L., Wilkinson-Sproat J., Wohldman P.;
                                                                                              Virus Genes 8:169-172(1994).
EMBL; D14455; BAA03352 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         wu x., Le
Submitted
                                                                                                                                      virus
                                                                                                                                      "Nucleotide sequence virus RNA.";
                                                                                                                                                                                                                              SEQUENCE FROM N.A.
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Submitted (AP
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STRAIN-BRISTOL N2;
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Wu X., Le T.T.;
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                       PR00995; CAPILLOPTASE.
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Caenorhabditis.
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2.1e+02;
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INTERPRO; IPR001815; -.
INTERPRO; IPR001815; -.
PFAM; PF02103; Peptidase_S35; 1.
PRINTS; PR00995; CAPILLOPTASE.
PRINTS; PR00995; AA; 36179 MW; E10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Terauchi H., Magome H., Yoshikawa N., Takahashi T.;
"Nucleotide sequence of the genome of apple stem grooving
i solate and construction of an infectious cONA clone of t
containing a c auliflower mosaic virus 35s RNA.";
Ann. Phytopathol. Soc. Jpn. 63:432-436(1997).
EMBL; D16368; BAA03870.1;
EMBL; D16368; DA03870.1;
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01-OCT-2000 (TrEMBLrel.
01-OCT-2000 (TrEMBLrel.
01-OCT-2000 (TrEMBLrel.
                   MEDLINE-20143766; PubMed-10678967;
Boyd E.F., Moyer K.E., Shi L., Waldor M.K.;
"Infectious CTXPhi and the vibrio pathogeni
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Q9YPI1;
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01-MAY-1999
          vibrio
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                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                      Bacteria;
                                                                                                                                                                                   Vibrio mimicus.
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                                                                                                                                             NCBI_TaxID=674;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SPECIES=Citrus tatter leaf virus;
MEDLINE=94103780; PubMed=8277280;
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mimicus and V. cholerae."; Infect. Immun. 68:1507-1513(2000). EMBL; AF207857; AAF40142.1; -. NON_TER 1 1 1 NON_TER 323 323 SEQUENCE 323 AA; 36306 MW; 01C

01C12DAE9B873C3B CRC64;

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Cloning and Expression of
Cloning and Expression of
Submitted (JAN-1999) to th
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                                                                                                                                                                                         STRAIN-EL TOR N16961 / SEROTYPE 01;
MEDLING-20406833; PubMed-10952301;
Heidelberg J.F., Eisen J.A., Nelson W.C., Clayton R.A., Gwinn M.L.,
Dodson R.J., Haft D.H., Hickey E.K., Peterson J.D., Umayam L.A.,
Gill S.R., Nelson K.E., Read T.D., Tettelin H., Richardson D.,
Gill S.R., Vanathevan J., Bass S., Qin H., Dragoi I., Sellers P.,
McDonald L., Utterback T., Fleishmann R.D., Nierman W.C., White O.,
Salzberg S.L., Smith H.O., Colwell R.R., Mekalanos J.J., Venter J.C.,
Fraser C.M.,
                                                                                                              Nature 406:477-483(2000).

EMBL; AF175708; AAD51358.1;

EMBL; AF123049; AAD26854.1;

EMBL; AE004224; AAF94615.1;

TIGR; VC1458;
                                                                                                                                                                      "DNA sequence of both cholerae.";
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O1-MAY-2000 (TrEMBLrel. 13, Last sequence update)
O1-OCT-2000 (TrEMBLrel. 15, Last annotation update)
HYPOTHETICAL 66.2 KDA PROTEIN.
T20K18.30 OR AT4G12680.
                                                                                                                                                         EU Arabidopsis sequencing project; Submitted (MAR-2000) to the EMBL/GenBank/DDBJ EMBL; AL049640; CAB40985.1; -. EMBL; AL161534; CAB78310.1; -. Hypothetical protein.
SEQUENCE 590 AA; 66204 MW; 629A9681DC0CDAI
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US-08-484-956-88
US-08-757-653-88
US-08-757-653-91
US-08-757-653-91
US-08-759-038-102
US-08-758-314-102
US-08-758-314-102
US-08-758-314-102
US-08-484-956-89
US-08-484-956-89
US-08-484-956-87
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US-08-757-653-86
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                   US-08-624-601-8
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US-08-624-601-8
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GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC COMPATIBLE
COMPUTER: IBM PC COMPATIBLE
COMPUTER: IBM PC COMPATIBLE
COMPUTER: IBM PC COMPATIBLE
COMPATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIN Release #1.0, Version #1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/624,601
FILING DATE: 08-APR-1996
CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
NAME: Schneller Dr., John W.
REGISTRATION NUMBER: 26,031
REFERENCE/DOCKET NUMBER: BANCZ0019P2
TELLEPHONE: (202)414-4000
TELLEPHONE: (202)414-4000
TELEFAX: (202)414-4000
                                                                                                                                                                                                                                                 TELEFAX: (202)414-4040
INFORMATION FOR SEQ ID NO: 1
SEQUENCE CHARACTERISTICS:
LENGTH: 400 amino acids
                                                                                                             STRANDEDNISS:
STRANDEDNISS:
TOPOLOGY: linea
MOLECULE TYPE: pe
HYPOTHETICAL: NO
ANTI-SENSE: NO
ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Kaper Dr., James B.
APPLICANT: Levine Dr., Myron M.
TITLE OF INVENTION: Vibrio cholerae O1 (CVD111) and non-O1
TITLE OF INVENTION: (CVD112 and CVD112RM) serogroup vaccine strains, methods
TITLE OF INVENTION: of making same and products thereof
NUMBER OF SEQUENCES: 16
                                 STRAIN: El TOR
IMMEDIATE SOURCE:
CLONE: ZOT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQUENCES: 1
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STREET: 1100 New CITY: Washington STATE: D.C. COUNTRY: USA ZIP: 20005
                                                                         ORGANISM: Vibrio cholerae STRAIN: El Tor 7946
                                                                                                                                                                                                                                 TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADDRESSEE:
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1100 New York Ave.
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NO
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US-08-757-653-5
US-08-599-491-5
US-08-756-386-5
US-08-823-516-5
US-08-823-516-5
US-08-759-038-5
US-08-759-038-5
US-08-758-314-5
US-08-756-020-4
US-08-156-020-6
US-08-156-020-6
US-08-156-020-10
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Best Local Similarity
5; Conserve
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                GENERAL INFORMATION:

APPLICANT: Legrain, Pierre

APPLICANT: Eromont, Micheline

APPLICANT: Rain, Jean-Christophe

APPLICANT: Rain, Jean-Christophe

APPLICANT: Rain, Jean-Christophe

TITLE OF INVENTION: FAST AND EXHAUSTIVE METHOD FOR SELECTING A PREY

TITLE OF INVENTION: INTEREST: APPLICATION TO THE CONSTRUCTION OF MAPS C

TITLE OF INVENTION: INTEREST: APPLICATION TO THE CONSTRUCTION OF MAPS C

TITLE OF INVENTION: INTERACTORS POLYPEPTIDES

FILE REFERENCE: 03495-0164
                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; MOLECULE TYPE: protein US-08-499-215-3
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ZIP: 2003/-3202
COMPOTER READABLE FORM:
COMPOTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPOTER: IBM PC compatible
COMPOTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
COPTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CLASSIFICATION: 435 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE OF INVENTION: BIOLOGICAL DEGRADATIVE TITLE OF INVENTION: TREATMENT OF CHLORINE:
                                                                                                                                                                                                                                                                                                  95 GRIVVSDG 102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         291 GRLCVQDG 298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TOPOLOGY:
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FILING DATE: 08-JUL-1994
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nes 6; Conser
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APPLICATION NUMBER: US/09/025,151 FILING DATE: 1998-02-18
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            117 amino acids
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62.5%;
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75.0%;
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Pred. No. 16;
2; Mismatches
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Pred. No.
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38;
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                                                                                                                                                                                                                                                                                                                                                                                                   Length 117;
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US-08-484-956-88
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                                                                                                                                                                                                                      APPLICATION NUMBER: US 08/337,164
FILLING DATE: 09-NOV-1994
PRIOR APPLICATION DATA:
APPLICATION UNMBER: US 08/254,359
FILLING DATE: 06-JUN-1994
PRIOR APPLICATION DATA:
APPLICATION UNMBER: US 08/073,384
FILLING DATE: 04-JUN-1993
PRIOR APPLICATION DATA:
APPLICATION DATA:
INC. NUMBER: US 07/086,330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Patent No. 5843654
GENERAL INFORMATION:
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Best Local Similarity
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SEQ ID NO 7
LENGTH: 79
TYPE: PRT
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                                                            TELEPHONE: (415) 705-84
TELEFAX: (415) 397-8338
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: LYAMICHEV,
APPLICANT: BROW, MARY
APPLICANT: OLDENBURG,
APPLICANT: HEISLER, LA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NUMBER OF SEQ ID NOS: 29
                              SEQUENCE CHARACTERISTICS:
LENGTH: 310 amino acid
                                                                                                         REGISTRATION NUMBER: 32,837
REFERENCE/DOCKET NUMBER: FO
TELECOMMUNICATION INFORMATION:
                                                                                                                                                           APPLICATION NUMBER: US 07/
FILING DATE: 07-DEC-1992
ATTORNEY/AGENT INFORMATION:
NAME: CARRPOLL ], PETER G.
                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US 08/402,601 FILING DATE: 09-MAR-1995 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                 CLASSIFICATION: 435
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CORRESPONDENCE ADDRESS:
ADDRESSEE: HAVERSTOC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE OF INVENTION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STREET: 220 MONTGOMERY STREET, SUITE 2200 CITY: SAN FRANCISCO
STATE: CALIFORNIA
STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: FILING DATE:
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                amino acid
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                       310 amino acids
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LYAMICHEV, VICTOR I.
BROW, MARY ANN D.
OLDENBURG, MARY C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            UNITED STATES OF
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85.7%;
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; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-484-956-88
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                                                                                                                                                                    Query Match
Best Local Similarity
"""hes 6; Conserv
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                                                            US-08-484-956-91
                                                                                                                                                                                                                                                               ; TOPOLOGY: linear; MOLECULE TYPE: protein US-08-757-653-88
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Best Local Similarity
Matches 6; Conserv
Sequence 91, Application US/08484956
Patent NO. 5843654
GENERAL INFORMATION:
APPLICANT: DAHLBERG, JAMES E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 88,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                     TELEFAX: (415) 397-833
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                             REGISTRATION NUMBER: FOR REFERENCE/DOCKET NUMBER: FOR TELECOMMUNICATION INFORMATION: TELEPHONE: (415) 705-8338 GR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIN Release #1.0,
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                               ATTORNEY/AGENT INFORMATION:
NAME: Ingolia, Diane E.
REGISTRATION NUMBER: 40,027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION: Cleavage Of Nucleic Acid Using TITLE OF INVENTION: Thermostable FEN-1 Endonucleases
                                                                                                                         13 GRYLLVDG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US/08/757,653 FILING DATE: CLASSIFICATION: 435
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STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             13 GRVLLVDG 20
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                                                                                                                                       1 GRVLVQDG 8
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220 Montgomery Street, Suite 2200
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Lyamichev, Natasha
UVENTION: Cleavage Of Nucleic Acid Using
                                                                                                                                                                                                                                                                                                                                       310 amino acids
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Pred. No.
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Pred. No. 75;
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Query Match
Best Local Similarity
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US-08-757-653-91
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                                                                                                       Sequence 91, Application US/08757653 Patent No. 5843669
                                                                                       GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEFAX: (415) 397-83 INFORMATION FOR SEQ ID NO:
APPLICANT: Kaiser, Michael W.
APPLICANT: Lyamichev, Victor I.
APPLICANT: Lyamichev, Victor I.
APPLICANT: Lyamichev, Natasha
TITLE OF INVENTION: Cleavage Of Nucleic Acid Using
TITLE OF INVENTION: Thermostable FEN-1 Endonucleases
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REFERENCE/DOCKET NUMBER: FO
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 705-8410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US 08/402,601 FILING DATE: 09-MAR-1995 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS:
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ATTORNEY/AGENT INFORMATION:
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OPERATING SYSTEM: PC-DOS/MS-DOS
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TOPOLOGY: lir
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06-JUN-1994
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Pred. No.
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Best Local :
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INFORMATION FOR SEQ ID NO: 9
SEQUENCE CHARACTERISTICS:
LENGTH: 315 amino acids
                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                      APPLICANT: Lyamichev, Victor I.
APPLICANT: Lyamichev, Natasha
TITLE OF INVENTION: Cleavage Of Nucleic Acid Using
TITLE OF INVENTION: Thermostable FEN-1 Endonucleases
NUMBER OF SEQUENCES: 190
                                ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                       CORRESPONDENCE ADDRESS:
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TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 705-8410
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NAME: Ingolia, Diane E.
REGISTRATION NUMBER: 40,
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NAME: Ingolia, Diane E. REGISTRATION NUMBER: 40,027
                                                                    APPLICATION NUMBER: FILING DATE:
                                                                                                                                                                                                                                     CITY: San Francisco
STATE: California
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                                                   CLASSIFICATION:
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25 GRVLLVDG 32
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OPERATING SYSTEM: PC-DOS/MS-DOS
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o. 5843669
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ER: FORS-02565
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Pred. No.
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INFORMATION FOR SEQ ID NO:
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/823,516
                                                         PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/599,491
FILING DATE: 24-JAN-1996
ATTORNEY/AGENT INFORMATION:
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APPLICATION NUMBER:
                                                                                                                                                                                                                                                                    APPLICATION NUMBER: PCT/US97/01072
FILING DATE: 21-JAN-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/759,038
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                                                                                                                                                                                                                                                                                                                                 CLASSIFICATION: 435
PRIOR APPLICATION DATA:
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COMPUTER READABLE FORM:
ELECOMMUNICATION INFORMATION:
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TOPOLOGY: 11--
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                REFERENCE/DOCKET NUMBER:
                              REGISTRATION NUMBER:
                                                                                                                        APPLICATION NUMBER: FILING DATE: 12-JU
                                                                                                                                                              APPLICATION NUMBER: US 08/756,386 FILING DATE: 29-NOV-1996
                                                                                                                                                                                                            FILING DATE:
                                                                                                                                                                                                                                                         FILING DATE: 02-DEC-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STREET: 220 Montgomery Street,
CITY: San Francisco
STATE: California
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No. 5994069
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                                         Ingolia, Diane E
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75.0%;
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                         40,027
              FORS-02736
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Pred. No.
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Best Local Similarity
""thes 6; Conserve
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; TOPOLOGY: 1; MOLECULE TYPE: US-08-759-038-102
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                                                                                            TELEFAX: (415) 397-83 INFORMATION FOR SEQ ID NO:
                                                                                                                     NAME: INGOLIA, Diane E. REGISTRATION NUMBER: 40,027 REFERENCE/DOCKET NUMBER: FOI TELECOMMUNICATION INFORMATION: TELECHHONE: (415),705-6410
                                                                                                                                                                                                                         APPLICATION NUMBER: US 08/682,853
FILING DATE: 12-JUL-1996
PRIOR APPLICATION UMBER: US 08/599,491
FILING DATE: 24-JAN-1996
                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/
FILING DATE: 29-NOV-1996
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDIUM TYPE: Floppy
                                                          SEQUENCE CHARACTERISTICS:
LENGTH: 320 amino acids
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Dahlberg, James E.
TITLE OF INVENTION: Cleavage Of Nucleic Acids
NUMBER OF SEQUENCES: 134
                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 0
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                25 GRVLLVDG 32
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220 Montgomery Street, Si
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02-DEC-1996
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                                                                                                         397-8338
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Pred. No.
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RESULT 12
US-08-484-956-89
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; MOLECULE TYPE:
US-08-758-314-102
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Best Local
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Best Local (
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TELECOMUNICATION INFORMATION:

(415) 705-8410
                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US 08/682,853
FILING DATE: 12-JUL-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/599,491
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APPLICATION NUMBER: US 08/
FILING DATE: 29-NOV-1996
PRIOR APPLICATION DATA:
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CORRESPONDENCE ADDRESS:
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                                                                25 GRVLLVDG 32
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SOFTWARE: Patent:
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California
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Lyamichev, Natasha
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75.0%;
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Pred. No.
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Pred. No.
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; Sequence 89, Application US/08484956
; Patent No. 5843654

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                                                                                               US-08-757-653-89
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; MOLECULE TYPE:
US-08-484-956-89
                                               Sequence 89, Application US/08757653 Patent No. 5843669 GENERAL INFORMATION:
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Best Local Similarity
                                                                                                                                                                                                                                  Matches
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INFORMATION FOR SEQ ID NO: (
SEQUENCE CHARACTERISTICS:
LENGTH: 322 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE/DOCKET NUMBER: 32,837
REFERENCE/DOCKET NUMBER: FORS-01801
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 705-8417
                  APPLICANT:
APPLICANT:
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PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/986,330
FILING DATE: 07-DEC-1992
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ADDRESSEE: HAVERSTOCK, MEDLEN & CARROLL
STREET: 220 MONTCOMERY STREET, SUITE 2200
CITY: SAN FRANCISCO
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                                                                                                                                                                25 GRVLLVDG 32
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Lyamichev, Victor I.
Lyamichev, Natasha
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                                Kaiser, Michael W.
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LYAMICHEV, VICTOR I.
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75.0%;
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Pred. No.
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RESULT 14
US-08-484-956-90
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Best Local Similarity
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Sequence 90, App.
Sequence 90, App.
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APPLICANT:
APPLICANT:
APPLICANT:
                                       COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                               NUMBER OF SEQUENCES: 114
CORRESPONDENCE ADDRESS:
ADDRESSEE: HAVERSTOCK,
                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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NAME: Ingolia, Diane E.
REGISTRATION NUMBER: 40,
REFERENCE/DOCKET NUMBER:
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STATE: California
"nited State
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                                                                                                                                                                                                                                               ITLE OF INVENTION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQUENCES:
                                                                                                                                                                  ADDRESSEE: HAVERSTOCK, MEDLEN & CARROLL STREET: 220 MONTGOMERY STREET, SUITE 2200 CITY: SAN FRANCISCO
CLASSIFICATION: 435
                                                                                                                                                              STATE:
                        APPLICATION NUMBER:
                                                                                                                                            COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                    25 GRVLLVDG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDIUM TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 GRVLVQDG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ENGTH:
                                                                                                                                 94104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      amino acid
                                                                                                                                                            CALIFORNIA
                                                                                                                                                                                                                                                                                                                                                               Application US/08484956
                                                                                                                                                                                                                                                                     LYAMICHEY,
BROW, MARY ANN D.
O'DENBURG, MARY C.
                                                                                                                                            UNITED STATES OF AMERICA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (415)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  220 Montgomery Street, Suite 2200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
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linear
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              397-8338
                                                                                                                                                                                                                                                                                                    V, VICTOR I.
                                                                                                                                                                                                                                             DETECTION OF p53 MUTATIONS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       75.0%;
75.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Cleavage Of Nucleic Acid Using
Thermostable FEN-1 Endonucleases
                         US/08/484,956
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FORS-02565
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
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PRIOR APPLICATION DATA: PRIOR APPLICATION DATA:
APPLICATION NUMBER:

FILING DATE: APPLICATION NUMBER: FILING DATE: 09-MAR-1995

09-NOV-1994

US 08/337,164

US 08/402,601

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; TOPOLOGY: Linear
; MOLECULE TYPE: protein
US-08-484-956-90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-08-757-653-90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US 08/073,384
FILING DATE: 04-JUN-1993
PRIOR APPLICATION DATA:
APPLICATION DATA: US 07/986,330
FILING DATE: 07-DEC-1992
ATTORNEY/AGENT INFORMATION:
NAME: CARRPOLL ), PETER G.
REGISTRATION NUMBER: 32,837
REFERENCE/DOCKET NUMBER: FORS-01801
TELECOMMUNICATION INFORMATION:
TELEPHOME: (415) 705-8410
TELEFAX: (415) 397-8338
INFORMATION FOR SEG ID NO: 90:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 90 Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 75.0
Best Local Similarity 75.0
Matches 6; Conservative
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: INGOLIA, DIANC E.
REGISTRATION UNMBER: 40,027
REFERENCE/DOCKET NUMBER: FORS
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
                                                                                                                                                   COMPUTER READABLE FORM:
MEDIJM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/757,653
                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Kaiser, Michael W.
APPLICANT: Lyamichev, Victor I.
APPLICANT: Lyamichev, Natusha
TITLE OF INVENTION: Cleavage Of Nucleic Acid Using
TITLE OF INVENTION: Thermostable FEN-1 Endonucleases
NUMBER OF SEQUENCES: 190
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/254,359
FILING DATE: 06-JUN-1994
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                   ADDRESSEE: Medlen & Carroll, LLP
STREET: 220 Montgomery Street, Suite 2200
CITY: San Francisco
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: amino acid
                                                                                                                                                                                                                                                                                                           COUNTRY: United States Of America ZIP: 94104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9 GRVLLVDG 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 GRVLVQDG 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   90, Application US/08757653
o. 5843669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           75.0%;
75.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 30; DB 2; Le
Pred. No. 1.4e+02;
1; Mismatches 1;
                        FORS-02565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 528;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
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; LENGTH: 528 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-757-653-90
Search completed: June 13, 2001, 14:16:32 Job time: 493 sec
                                                                          Вþ
                                                                                                         γ
                                                                                                                 Query Match
Best Local Similarity 75.v
Watches 6; Conservative
                                                                                                                                                                                                                                                                                                       TELEPHONE: (415) 705-8410
TELEFAX: (415) 397-8338
INFORMATION FOR SEQ ID NO: 90:
SEQUENCE CHARACTERISTICS:
                                                                                                         1 GRVLVQDG 8
                                                                          9 GRVLLVDG 16
                                                                                                                                                     75.0%;
75.0%;
                                                                                                                                       1; Mismatches
                                                                                                                                                    Score 30; DB 2;
Pred. No. 1.4e+02;
                                                                                                                                                                  Length 528;
                                                                                                                                       1; Indels
                                                                                                                                       0,:
                                                                                                                                       Gaps
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Title:
Perfect score:
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Maximum Match 100%
Listing first 45 s
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Maximum DB seq
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Scoring table:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence:
A_Geneseq_0401:*

1: /SIDS6/gcgdata/geneseq/geneseqp/AA1980.DAT:*

2: /SIDS6/gcgdata/geneseq/geneseqp/AA1981.DAT:*

3: /SIDS6/gcgdata/geneseq/geneseqp/AA1982.DAT:*

4: /SIDS6/gcgdata/geneseq/geneseqp/AA1983.DAT:*

5: /SIDS6/gcgdata/geneseq/geneseqp/AA1983.DAT:*

6: /SIDS6/gcgdata/geneseq/geneseqp/AA1985.DAT:*

7: /SIDS6/gcgdata/geneseq/geneseqp/AA1985.DAT:*

8: /SIDS6/gcgdata/geneseq/geneseqp/AA1987.DAT:*

9: /SIDS6/gcgdata/geneseq/geneseqp/AA1989.DAT:*

10: /SIDS6/gcgdata/geneseq/geneseqp/AA1989.DAT:*

11: /SIDS6/gcgdata/geneseq/geneseqp/AA1990.DAT:*

12: /SIDS6/gcgdata/geneseq/geneseqp/AA1991.DAT:*

13: /SIDS6/gcgdata/geneseq/geneseqp/AA1993.DAT:*

14: /SIDS6/gcgdata/geneseq/geneseqp/AA1993.DAT:*

15: /SIDS6/gcgdata/geneseq/geneseqp/AA1993.DAT:*

16: /SIDS6/gcgdata/geneseq/geneseqp/AA1995.DAT:*

17: /SIDS6/gcgdata/geneseq/geneseqp/AA1995.DAT:*

18: /SIDS6/gcgdata/geneseq/geneseqp/AA1997.DAT:*

19: /SIDS6/gcgdata/geneseq/geneseqp/AA1999.DAT:*

20: /SIDS6/gcgdata/geneseq/geneseqp/AA1999.DAT:*

21: /SIDS6/gcgdata/geneseq/geneseqp/AA1999.DAT:*

22: /SIDS6/gcgdata/geneseq/geneseqp/AA1999.DAT:*

23: /SIDS6/gcgdata/geneseq/geneseqp/AA1999.DAT:*

24: /SIDS6/gcgdata/geneseq/geneseqp/AA1999.DAT:*

25: /SIDS6/gcgdata/geneseq/geneseqp/AA1999.DAT:*

26: /SIDS6/gcgdata/geneseq/geneseqp/AA1999.DAT:*

27: /SIDS6/gcgdata/geneseq/geneseqp/AA1999.DAT:*

28: /SIDS6/gcgdata/geneseq/geneseqp/AA1999.DAT:*

29: /SIDS6/gcgdata/geneseq/geneseqp/AA1999.DAT:*
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length: 2000000000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BLOSUM62
Gapop 10.0 , Gapext 0.5
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PCT-US01-05825A-5
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GRLCVQPG 8
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

1 46 100.0 2 43 93.5 3 9 82.6 4 38 82.6 5 38 82.6 6 38 82.6 7 37 80.4 9 37 80.4 9 37 80.4 10 36 78.3	Result Query No. Score Match
8 21 Y 8 21 Y 8 21 Y 8 21 Y 8 21 Y 9 13 R 470 14 R 470 14 R 470 14 R 21 Y	Query Match Length DB ID
Y79109 Y79105 Y79121 Y791110 Y79113 R79113 R20006 R34476 R34477 R34478 R34478 R34478	1 1 1 1 1 1 1 1 1 1 1
Peptide antagonist Encoded by Hepatit Encoded by Hepatit Peptide antagonist Peptide antagonist Peptide antagonist	Description

WPI; 2000-205565/18

Fasano A;

New peptide antagonist of zonulin useful as antiinflammatory agent for

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273	272	273	272	373	272	272	373	36.	272) i	200	2 10) to	247	224	169	158	153	115	73	31	8	1291	901	321	942	878	331	236	166	129	100	80
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B24043	B24042	B18675	B18674	019673	B/ 4327	775 4 70	1 C C C C C C C C C C C C C C C C C C C	19291	Y41771	44.770	VA1760	MO0004	100000	DELCSA	Y59870	W88390	W88388	B41638	B41718	W88389	W88384	Y79107	R75201	B42494	Y17300	Y00871	89800A	G41445	B41465	G17501	G17502	G17503	Y79106
Human	Human	Amino	Am in C	Amin's	Human	וומווומוו	Human .	uman.	Himan	Tumon.	Human Human	i i i i i i i i i i i i i i i i i i i	Tion of	Himan	Human	Human	Human	Human	Human	Human	Human	Peptio	Tyrosine	Human ORFX	Recomb	Original	S. tul	Arabidops	Human	Arabidops	Arabi	Д	Peptid
PRO1330	_		2.5		PRO144	PRO1330	200213	1001	PRO1449	70013	080313-	2 4 6 6 6	1000	CONAT	norma	Zneul	\rightarrow		ORFX	Zneul	Zneul	de ant	σ	ORFX	an	nal S.	tuberosum	ŝ	×	dopsis	Arabidopsis	idopsis	O
30 prot		Sections	Sednesc	2049	19 2701		3-1 pro	- arouth	A9 prot	֓֞֜֜֜֜֜֜֜֜֓֓֓֓֜֜֜֜֜֓֓֓֓֓֜֜֜֜֜֓֓֓֓֓֜֜֜֜֓֓֓֓	- :	40.46	1	1257	l uteru	partia	partia	ORF1402	ORF14	parti	EGF-11	Peptide antagonist	phosphata	ORF		4	m isoam	thalia	ORF12	thal	thalia	thali	antagonist

ALIGNMENTS

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RESULT
Y79109
                                                                                                                                                                                   antibacterial; cytostatic; anti-HIV; vulnerary; antiallergic;
hypotensive; immunosuppressive; antiparasitic; vasotropic;
gastrointestinal inflammation; therapy.
                                                                               03-AUG-1998;
                                                                                                                                             WO200007609-A1
                                                                                                                                                                 Synthetic
                                                                                                                                                                                                                 zonulin; antagonist; zonula occludens toxin receptor; blood-brain barrier; antlinflammatory; cerebroprotective; neuroprotective; dermatological; antiuleer; antiviral;
                                                                                                                                                                                                                                                            Peptide antagonist of zonulin.
                                                                                                                                                                                                                                                                                05-JUN-2000 (first entry)
                                                                                                    28-JUL-1999;
                                                                                                                         17-FEB-2000.
                                                                                                                                                                                                                                                                                                       Y79109;
                                                                                                                                                                                                                                                                                                                          Y79109 standard; Peptide; 8
                                                          (UYMA-) UNIV MARYLAND BALTIMORE
                                                                               98US-0127815.
                                                                                                    99WO-US16683
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RESULT
Y79105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
Thes 8; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      This present sequence is that of a peptide antagonist of zonulin (Z), one of 25 such peptides (see Y79105-29) of the invention, which bind to a zonulia occludens toxin (ZON). The peptide antagonists are based on a common motif of ZON (TJ). The peptide antagonists are based on a common motif of ZON and human zonulins, which is believed to be critical for receptor common that the prepared by chemical synthesis or by use of CON antiinflammatory agents in the treatment of gastrointestinal inflammation, where they bind to the ZON receptor in the intestinal conditions give rise to common motif of ZON consists and yet does not physiologically modulate the opening of TJ in the confirmation. Gastrointestinal inflammation conditions give rise to contestine. Gastrointestinal conditions that cause protein losing enteropathy conference by infection, e.g. Clostridium difficile infection, caused by infection, e.g. Clostridium difficile infection, confestation, bacterial overgrowth, whipple's disease, diseases with collapsenus colitis, inflammatory bowel disease, diseases with collapsenus colitis, inflammatory bowel disease, diseases marked by correction of congenital heart disease with Fontan's operation.

CC collagenous colitis, mesenteric tuberculosis, and after surgical concertion of congenital heart disease with Fontan's operation.

CC collagenses without ulceration, e.g. Menetries mighangiectasia, collapses, eosinophilic gastroenteritis, and immune disease, collapses, collapses, and immune disease, collapses, and immune disease, collapses, and immune diseases.
(UYMA-) UNIV MARYLAND BALTIMORE
                                                03-AUG-1998;
                                                                                           28-JUL-1999;
                                                                                                                                    17-FEB-2000
                                                                                                                                                                             W0200007609-A1
                                                                                                                                                                                                                                                                    gastrointestinal
                                                                                                                                                                                                                                                                      Zonulln; antagonist; zonula occludens toxin receptor; blood-brain barrier; antiinflammatory; cerebroprotective; neuroprotective; dermatological; antiucer; antiviral; antibacterial; cytostatic; anti-HIV; vulnerary; antiallergic; hypotensive; immunosuppressive; antiparasitic; vasotropic;
                                                                                                                                                                                                                                                                                                                                                                                                                Peptide antagonist of zonulin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                         05-JUN-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Y79105 standard; Peptide; 8 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 GRLCVQPG 8
|||||||
1 grlcvqpg 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1; Page 42; 69pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             lupus
                                           98US-0127815.
                                                                                      99WO-US16683
                                                                                                                                                                                                                                                           inflammation; therapy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             erythematosus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 46; I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    food allergies, primarily to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 21;
3.2e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
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Trecombinant DNA techniques. The peptide antagonists are used as an contininflammatory agents in the treatment of gastrointestinal inflammation, where they bind to the 20T receptor in the intestine and great does not physiologically modulate the opening of TJ in the contract of the strine contining intestinal inflammation conditions give rise to contract of the conditions that cause protein losing enteropathy caused by infection, e.g. clostridium difficile infection, contract of the contra
   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            This present sequence is that of a peptide antagonist of zonulin (Z), one of 25 such peptides (see Y79105-29) of the invention, which bind to a zonula occludens toxin (Z07) receptor, yet do not physiologically modulate the opening of mammalian tight junctions and human zonulins, which is believed to be critical for receptor binding. They can be prepared by chemical synthesis or by use of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 1; Page 41; 69pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              treating cerebral ischemia, stroke, cerebral ed shigellosis, viral gastroenteritis, meningitis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New peptide antagonist of zonulin useful as antiinflammatory agent for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2000-205565/18
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A,
                                                                                           lupus
                                                                                               erythematosus or
                                                                                food allergies, primarily
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cerebral edema, gastritis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  encephalomyelitis
                                                                                diseases,
marily to
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RESULT
Y79121
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Best Local S
Matches 7
  28-JUL-1999;
                      17-FEB-2000
                                          WO200007609-A1
                                                              Synthetic
                                                                             gastrointestinal inflammation; therapy
                                                                                                       Zonulin; antagonist; zonula occludens toxin receptor; blood-brain barrier; antlinflammatory; cerebroprotective; neuroprotective; dermatological; antiulcer; antiviral;
                                                                                     antibacterial; cytostatic; anti-HIV; vulnerary; antiallergic;
hypotensive; immunosuppressive; antiparasitic; vasotropic;
                                                                                                                                                    Peptide antagonist of zonulin.
                                                                                                                                                                        05-JUN-2000
                                                                                                                                                                                                           Y79121 standard; Peptide; 8 AA
                                                                                                                                                                                                                                                                                                      Local Similarity nes 7; Conserv
                                                                                                                                                                                                                                                               1 grvcvqpg
                                                                                                                                                                                                                                                                                   1 GRLCVQPG 8
                                                                                                                                                                        (first
                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                               æ
99WO-US16683
                                                                                                                                                                       entry)
                                                                                                                                                                                                                                                                                                             93.5%;
                                                                                                                                                                                                                                                                                                   Score 43;
Pred. No.
1; Mismatc
                                                                                                                                                                                                                                                                                                    Mismatches
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                                                                                                                                                                                                                                                                                                             .2e+05;
                                                                                                                                                                                                                                                                                                   0
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ВВ

21;

Length 8;

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Best Local S
Matches 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            intestine. Gastrointestinal inflammation conditions give rise to increased intestinal permeability and the peptide is useful for treating intestinal conditions that cause protein losing enteropathy caused by infection, e.g. Clostridium difficult infection, enterocolitis, shigellosis, viral gastroenteritis, parasite infestation, bacterial overgrowth, whipple's disease, diseases with mucosal erosion or ulcerations, e.g. gastritis, gastric cancer, collagenous colitis, inflammatory bowel disease, diseases marked by lymphatic obstruction, e.g. congenital intestinal lymphangiectasia, sarcoidosis lymphoma, mesenteric tuberculosis, and after surgical correction of congenital heart disease with Fontan's operation, mucosal disease, eosinophilic gastroenterits, and immune disease, coeliac disease, eosinophilic gastroenteritis, and immune diseases.
                                               Zonulin; antagonist; zonula occludens toxin receptor; blood-brain barrier; antiinflammatory; cerebroprotective; neuroprotective; dermatcological; antiulcer; antiviral; antibacterial; cytostatic; anti-HIV; vulnerary; antiallergic; hypotensive; immunosuppressive; antiparasitic; vasotropic; gastrointestinal inflammation; therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (TJ). The peptide antagonists are based on a common motif of 20T and human zonulins, which is believed to be critical for receptor binding. They can be prepared by chemical synthesis or by use of recombinant DNA techniques. The peptide antagonists are used as an antilifiammatory agents in the treatment of gastrointestinal inflammation, where they bind to the ZOT receptor in the intestine and yet does not physiologically modulate the opening of TJ in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               This present sequence is that of a peptide antagonist of zonulin (z), one of 25 such peptides (see Y79105-29) of the invention, which bind to a zonula occludens toxin (ZOT) receptor, yet do not physiologically modulate the opening of mammalian tight junctions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 1; Page 46; 69pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New peptide antagonist of zonulin useful as antiinflammatory agent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2000-205565/18
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                                                                                                                                                                                                                                                                                                     Y79110 standard; Peptide; 8 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                            4
                                                                                                                                                                                                                                                                                                                                                                                                                                      GRLCVQPG 8
                                                                                                                                                                                                                                                                                                                                                                                                  gglcvqpg 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           l Similarity
7; Conserv
                                                                                                                                                                                      antagonist of zonulin
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                            (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Lupus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                98US-0127815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  erythematosus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               84.8%;
87.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 39; DB Pred. No. 3.2e 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                or food
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           . 3.2e+05;
tches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              allergies, primarily
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 8;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                င်
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RESULT
Y79113
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          and human zonulins, which is believed to be critical for receptor binding. They can be prepared by chemical synthesis or by use of recombinant DNA techniques. The peptide antagonists are used as an antiinflammatory agents in the treatment of gastrointestinal inflammation, where they bind to the 207 receptor in the intestine and yet does not physiologically modulate the opening of Tu in the intestine. Gastrointestinal inflammation conditions give rise to intestine. Gastrointestinal inflammation conditions give rise to increased intestinal permeability and the peptide is useful for treating intestinal permeability and the peptide is useful for caused by infection, e.g. Clostridium difficile infection, enterocolitis, wiral gastroenteritis, parasite infestation, becterial overgrowth, whipple's disease, diseases with mucosal erosion or ulcerations, e.g. congenital intestinal lymphangictussia, yarrointestinal permeability bowel disease, diseases marked by lymphatic obstruction, e.g. congenital intestinal lymphangictussia, secondary to the conditions of the peptide sease of the same of the peptide sease of the permeability in the peptide sease of the permeability in the permeability of the permeability in the permeability of the permeability in the permeability of the permeability is an and after surgical contents of the permeability in the permeability is particular.
                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    correction of congenital heart disease with Fontan's operation, mucosal diseases without ulceration, e.g. Menetrier's disease, coellac disease, eosinophilic gastroenteritis, and immune disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              This present sequence is that of a peptide antagonist of zonulin (Z), one of 25 such peptides (see Y79105-29) of the invention, which bind to a zonula occludens toxin (ZOT) receptor, yet do not physiologically modulate the opening of mammalian tight junctions (TJ). The peptide antagonists are based on a common motif of ZOT and human zonulins, which is believed to be critical for receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  shigellosis, viral gastroenteritis, meningitis, encephalomyelitis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 1; Page 42; 69pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New peptide antagonist of zonulin useful as antiinflammatory agent for treating cerebral ischemia, stroke, cerebral edema, gastritis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         17-FEB-2000
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                                   Zonulin; antagonist; zonula occludens toxin receptor;
blood-brain barrier; antiinflammatory; cerebroprotective;
                                                                                                                                        05-JUN-2000
                                                                                                                                                                                                                        Y79113
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                                                                                                                                                                                                                                                                                                                    1 grlcvqdg
                                                                                                                                                                                                                                                                                                                                                              1 GRLCVQPG
                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                     standard;
                                                                                                                                                                                                                                                                                                                                                                                                      Similarity 7; Conserv
                                                                                                antagonist of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                        (first entry)
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                                                                                                                                                                                                                        Peptide; 8
                                                                                                                                                                                                                                                                                                                                                                                                                             82
87
                                                                                                zonulin.
                                                                                                                                                                                                                                                                                                                                                                                                                         . 5%;
                                                                                                                                                                                                                                                                                                                                                                                                      Score 38; DB
Pred. No. 3.2e
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 21;
                                                                                                                                                                                                                                                                                                                                                                                                                         2e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 e diseases,
marily to
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neuroprotective; dermatological; antiulcer; antiviral antibacterial; cytoStatic; anti-HIV; vulnerary; antia

blood-brain

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RESULT
R20006
ID R2
XX
AC R2
AC R2
XX
31
DT 31
XX
                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
""" onserv
                                                                                                                                                                                                                                                                                                                                                                  This present sequence is that of a peptide antagonist of zonulin (2), one of 25 such peptides (see Y79105-29) of the invention, which bind to a zonula occludens toxin (207) receptor, yet do not complete the period of the invention. (207) receptor, yet do not complete the period of mammalian tight junctions (207). The peptide antagonists are based on a common motif of 207 cand human zonulins, which is believed to be critical for receptor binding. They can be prepared by chemical synthesis or by use of crecombinant DNA techniques. The peptide antagonists are used as an inflammation, where they bind to the 207 receptor in the intestine cand yet does not physiologically modulate the opening of TJ in the cincessed intestine. Gastrointestinal inflammation conditions give rise to increased intestinal permeability and the peptide is useful for caused by infection, e.g. Clostridium difficile infection, caused by infection, e.g. Clostridium difficile infection, conditions, bacterial overgrowth, whipple's disease, diseases with communication solitis, inflammatory bowel disease, diseases with conditions legentary congenital intestinal lymphangiectasia, correction of congenital heart disease with Fontan's operation, concellac disease, wesinophilic gastroenteries, and after surgical concellac disease, wesinophilic gastroenteries, and immune diseases, concellac disease, eosinophilic gastroenteries, and immune diseases, condities.
Zonula occludens toxin
                               31-MAR-1992
                                                                  R20006
                                                                                               R20006 standard;
                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New peptide antagonist of zonulin useful as antiinflammatory agent for treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 1; Page 43; 69pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2000-205565/18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        03-AUG-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        28-JUL-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                hypotensive; immunosuppressive; antiparasitic; vasotropic; gastrointestinal inflammation; therapy.
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                                                                                                                                                                                                   1 GRLCVQPG 8
                                                                                                                                    6
                                                                                                                                                                                 grgcvqpg
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                            (first entry)
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                                                                                               Protein; 399 AA
                                                                                                                                                                                                                                                               82.6%;
87.5%;
                                                                                                                                                                                                                                                 0
                                                                                                                                                                                                                                          Score 38; DB 21; pred. No. 3.2e+05; 0; Mismatches 1;
                                                                                                                                                                                                                                                                           Length 8;
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DT DT CXX
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                                                                                                                                                                                                                                                                                                              Вþ
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WPI; 1993-130638/16.
N-PSDB; Q40434.
                                                                                                                                                                                                                                                                                                                                                                                                         efficacy in protecting humans against subsequent infection with a strain of a similar serotype and avoid undestrable side effects such used for prodn. of vaccines against cholera.

Sequence 300 %
                            (SANW ) SANWA KAGAKU KENKYUSHO CO
                                                  30-MAY-1991;
                                                                        30-MAY-1991;
                                                                                             23-MAR-1993
                                                                                                                                                         HCV; non-A, non-E polymerase chain
                                                                                                                                                                                                          30-JUL-1993 (first entry)
                                                                                                                   JP05068562-A
                                                                                                                                      Hepatitis C virus
                                                                                                                                                                                       Encoded by Hepatitis C virus
                                                                                                                                                                                                                                   R34476;
                                                                                                                                                                                                                                                      R34476 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The amino acid sequence is that of the zonula occludens toxin ( It may be responsible for diarrhoea in some strains of cholera the ZOT gene or fragments of it are deleted from strains of vib cholerae (V.c.) to be used as vaccines. These V.c. strains have
                                                                                                                                                                                                                                                                                                        291 grlcvqdg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Disclosure; Fig 18; 83pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New ViDT10 Cholerae strains - comprise restriction endonuclease fragment encoding toxin, used as vaccines against cholera
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New Vibrio cholerae strains
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Kaper JB,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     05-JUN-1990;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         05-JUN-1991;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Vibrio cholerae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ZOT; cholera; vaccine; enterotoxin;
                                                                                                                                                                                                                                                                                                                      1 GRLCVQPG
                                                                                                                                                                                                                                                                              7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1992-007465/01
                                                                                                                                                         non-B hepatitis virus; NANBHV; liver disease;
chain reaction; diagnostic method.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Baudry-Maurelli B,
                                                                                                                                                                                                                                                                                                                                                                                                        399 AA;
                                                                                                                                                                                                                                                                                                          298
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                                                  91JP-0153736
                                                                       91JP-0153736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     90US-0533315
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                                                                                                                                                                                                                                                      Protein; 470
                                                                                                                                                                                                                                                                                                                                                             82.6%;
                                                                                                                                                       diagnostic method
                                                                                                                                                                                                                                                                                                                                                 Score 38; DB Pred. No. 20; 0; Mismatches
                                                                                                                                                                                       clone JK4-A.
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                                                                                                                                                                                                                                                                                                                                                                       13;
                                                                                                                                                                                                                                                                                                                                                  1;
                                                                                                                                                                                                                                                                                                                                                                      Length 399;
                                                                                                                                                                                                                                                                                                                                                 0
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RESULT
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                          Query Match 80.
Best Local Similarity 75.
Matches 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
Matches 6; Conserv
                                                                           cDNA was prepared from HCV genomic RNA. Full-length clone JK1-B (9405 nucleotides long) and 14 shorter clones were isolated by PCR amplification, including clone JK4-B. Primer/probes derived from the sequences of these clones can be used in diagnostic assays for HCV. See Q40425-Q40439.
                                                                                                                                                                                                                                                                                                                                                                                                                                                         cDNA was prepared from HCV genomic RNA. Full-length clone JK1-B (9405 nucleotides long) and 14 shorter clones were isolated by PCR amplification, including clone JK4-A. Primer/probes derived from the sequences of these clones can be used in diagnostic assays for HCV. See Q40425-Q40439.
                                                                                                                                      DNA and cDNA of hepatitis C virus - diagnosing HCV infection
                                                                                                                        Claim 4; Page 34-36; 44pp; Japanese
                                                                                                                                                             WPI; 1993-130638/16.
N-PSDB; Q40435.
                                                                                                                                                                                                                                            JP05068562-A
                                                                                                                                                                                                                                                          Hepatitis C virus
                                                                                                                                                                                                                                                                                              Encoded
                                                                                                                                                                                                                                                                                                                                         R34477 standard; Protein; 470 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DNA and cDNA of hepatitis diagnosing HCV infection
                                                                Sequence
                                                                                                                                                                                                 30-MAY-1991;
                                                                                                                                                                                                               30-MAY-1991;
                                                                                                                                                                                                                              23-MAR-1993.
                                                                                                                                                                                                                                                                         polymerase chain reaction; diagnostic method
                                                                                                                                                                                                                                                                                HCV; non-A,
                                                                                                                                                                                                                                                                                                            30-JUL-1993
                                                                                                                                                                                                                                                                                                                           R34477;
                                                                                                                                                                                  (SANW ) SANWA KAGAKU KENKYUSHO
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                                                                                                                                                                                                                                                                                              Hepatitis
                                                                                                                                                                                                                                                                                                                                                                                                                                            470 AA;
                                                                470 AA;
                                                                                                                                                                                                                                                                                 non-B hepatitis virus; NANBHV;
                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                            (first entry)
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75.0%;
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75.0%;
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                                   Score 37;
Pred. No.
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Pred. No.
                                                                                                                                                                                                                                                                                              clone JK4-B
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                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           useful as
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35;
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                                                                                                                                                                                                                                                                                liver disease;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          probes
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                                                                                                                                                                                                                                                                                                                                                                                                                      Length 470;
                                          Length 470;
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Query Match
Best Local Similarity
Matches 6; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DNA and cDNA of hepatitis C virus - useful as probes diagnosing HCV infection % \left( 1\right) =\left\{ 1\right\} =\left\{ 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 1993-130638/16
N-PSDB; Q40436.
                                                                                                                                                                                                                                                                                Zonulin; antagonist; zonula occludens toxin receptor; blood-brain barrier; antiinflammatory; cerebroprotective; neuroprotective; dermatological; antilleer; antiviral; antibacterial; cytostatic; anti-HIV; vulnerary; antialler;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  30-MAY-1991;
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polymerase chain reaction; diagnost
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    30-JUL-1993
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                                                                                                                                                   hypotensive; immunosuppressive; antiparasitic; gastrointestinal inflammation; therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 05-JUN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Y79111;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
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Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Peptide antagonist of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Y79111 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          See Q40425-Q40439.
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      recombinant DNA techniques. The peptide antagonists are used as an antiinflammatory agents in the treatment of gastrointestinal confirmation, where they bind to the 207 receptor in the intestine cand yet does not physiologically modulate the opening of TJ in the CI intestine. Gastrointestinal inflammation conditions give rise to concreased intestinal permeability and the peptide is useful for CC treating intestinal permeability and the peptide is useful for CC treating intestinal conditions that cause protein losing enteropathy caused by infection, e.g. Clostridium difficile infection, enterocolitis, shigellosis, viral gastroenteritis, parasite infestation, bacterial overgrowth, whipple's disease, diseases with collisis colitis, inflammatory bowel disease, diseases with sarcoidosis lymphoma, mesenteric tuberculosis, and after surgical correction of congenital heart disease with Fontan's operation, cels. correction of congenital heart disease with Fontan's operation, coliac disease, essinophilic gastroenteritis, and after surgical concessal disease, essinophilic gastroenteritis, and immune disease, e.g. systemic lupus erythematosus or food allergies, primarily to
Zonulin; antagonist; zonula occludens toxin receptor; blood-brain barrier; antiinflammatory; cerebroprotective; neuroprotective; dermatological; antiulcer; antiviral; antibacterial; cytostatic; anti-HIV; vulnerary; antiallergic; antibarasitic; vasotropic;
                                                                                                                             Peptide
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                                                                                                                                                                                                                                      Y79117 standard; Peptide; 8 AA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     This present sequence is that of a peptide antagonist of zonulin (2), one of 25 such peptides (see Y79105-29) of the invention, which bind to a zonula occludens toxin (ZOT) receptor, yet do not physiologically modulate the opening of mammalian tight junctions (TJ). The peptide antagonists are based on a common motif of ZOT and human zonulins, which is believed to be critical for receptor binding. They can be prepared by chamical synthesis or by use of recombinant DNA techniques.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim
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                                                                                                                           antagonist of
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Pred. No. 3.2e+05;
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05-JUN-2000

(first entry)

Peptide antagonist of zonulin

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1 GRLCVQPG 8 ggvcvqpg

Matches Query Match Best Local

Similarity 6; Conserv

78.3%; 75.0%;

Score 36; I Pred. No. 3

DB 21; 3.2e+05;

Length 8; Indels

0

Gaps

0,

Mismatches

Conservative

Y79106 RESULT

12

Y79106 standard; Peptide;

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mucosal erosion or ulcerations, e.g. gastritis, gastric cancer, collagenous colitis, inflammatory bowel disease, diseases marked by lymphatic obstruction, e.g. congenital intestinal lymphangiectasia, sarcoidosis lymphoma, mesenteric tuberculosis, and after surgical correction of congenital heart disease with Fontan's operation, mucosal diseases without ulceration, e.g. Menetrier's disease, coeliac disease, eosinophilic gastroenteritis, and immune diseases, coeliac disease, eosinophilic gastroenteritis, and immune diseases.
Sequence
                                                                                                                                                                                                   intestine. Gastrointestinal inflammation conditions give rise to increased intestinal permeability and the peptide is useful for treating intestinal conditions that cause protein losing enteropathy caused by infection, e.g. Clostridium difficile infection, enterocolitis, shigellosis, viral gastroenteritis, parasite infestation, bacterial overgrowth, whipple's disease, diseases with
                                                                                                                                                                                                                                                                                                                          recombinant DNA techniques. The peptide antagonists are used as an antiinflammatory agents in the treatment of gastrointestinal inflammation, where they bind to the ZOT receptor in the intestine and yet does not physiologically modulate the opening of TJ in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New peptide antagonist of zonulin useful as antiinflammatory agent for treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This present sequence is that of a peptide antagonist of zonulin (Z), one of 25 such peptides (see Y79105-29) of the invention, which bind to a zonula occludens toxin (ZOT) receptor, yet do not physiologically modulate the opening of mammalian tight junction.
                                                                                                                                                                                                                                                                                                                                                                                                                                     (TJ). The peptide antagonists are based on a common and human zonulins, which is believed to be critical
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 1; Page 45; 69pp; English
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                                                         erythematosus
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                                                       or food
                                                allergies, primarily
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RESULT
G17503
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                               G17503 standard; Protein; 100 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 1; Page 41; 69pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New peptide antagonist of zonulin useful as antiinflammatory agent for treating cerebral ischemia, stroke, cerebral edema, gastritis, shigeliosis, viral gastroenteritis, meningitis, encephalomyelitis
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75.0%;
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hybridisation assay; gen
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n control; promoter;
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Protein identification; signal transduction pathway; metabolic pathway; hybridisation assay; genetic mapping; gene expression control; promoter;
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               06-SEP-2000
                                                                                          Protein identification; signal transduction pathway; metabolic pathway; hybridisation assay; genetic mapping; gene expression control; promoter; termination sequence.
                                         EP1033405-A2
                                                               Arabidopsis thaliana.
                                                                                                                                         Arabidopsis thaliana protein fragment SEQ ID NO: 18544.
                                                                                                                                                                                                       G17501;
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| grlcvdp
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6; Conservative
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85.7%;
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Pred. No. 26;
0; Mismatches
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06-APR-1999
16-APR-1999
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990S-0121825

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990S-0125786

990S-0126785

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990S-0128714

990S-0130449

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990S-0131449

990S-0132486

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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
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Perfect score:
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   Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   length: 0
length: 2000000000
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Match Length DB
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1744992
882197
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RESULT 1 T34992 probable lipoprotein - Streptomyces C; Species: Streptomyces coelicolor C; Date: 05-Nov-1999 #sequence_revis C; Accession: T34992 R; Oliver, K.; Harris, D.; Parkhill, submitted to the EMBL Data Library, A; Reference number: Z21550 A; Accession: T34992 A; Status: preliminary; translated f A; Molecule type: DNA A; Residues: 1-447 <oli>A; Cross-references: EMBL:AL031182; A; Cross-references: EMBL:AL031182; A; Genetics: A; Genetics: SCOEDB:SC4A2.17c</oli>				
lipoprotein - S ss: Streptomyces 05-Nov-1999 #seq ion: T34992 ion: T34992 ion: T34992 ion: T34992 si preliminary: t ile type: DNA les: 1-447 < OLIV references: EMBI mental source: S SCOEDB: SC4A2.17c	•	32 32 32 32 32 32 32 32 32 31 31 31 31		
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myc olo rev hil rar ted ted		000000000000000		
ptomyces coelicolor licolor ce_revision 05-Nov-1 arkhill, J.; Barrell Library, August 1998 slated from GB/EMBL/ 031182; PIDN:CAA2016 in A3(2)	ALIGN	F83199 JE0391 C82422 T50964 T150964 H81703 H81703 A72156 PN0510 PN0510 JC4963 JC4963 D370564365 C75595		
- Streptomyces coelicolor rees coelicolor #sequence_revision 05-Nov-1999 #text_change 05-Nov-1999 #sequence_revision 05-N	ALIGNMENTS	probable carbohydr glycerol kinase (E glycerol kinase VC related to RCC1 pr estrogen dependent probable s/t prothet conserved hypothet conserved hypothet s/t protein kinase integrin beta-3 ch integrin beta-3 ch metalloproteinase epitheilal cell gl hypothetical prote conserved hypothet		

C; Genetics: A; Gene: VC1458 A; Map position: A;Status: preliminary
A;Molecule type: DNA
A;Molecule type: DNA
A;Residues: 1-399 <HEID
A;Cross-references: GB:AE004224; GB:AE003852; NID:g9655952; PIDN:AAF94615.1; GSPDB:GN
A;Experimental source: serogroup O1; strain N16961; blotype E1 Tor R;Heidelberg, J.F.; Eisen, J.A.; Nelson, W.C.; Clayton, R.A.; Gwinn, M.L.; Dodson, R. Chardson, D.; Ermolaeva, M.D.; Vamathevan, J.; Bass, S.; Qin, H.; Dragoi, I.; Sellers l, R.R.; Mekkalanos, J.J.; Venter, J.C.; Fraser, C.M.

Nature 406, 477-483, 2000
A;Title: DNA Sequence of both chromosomes of the cholera pathogen Vibrio cholerae.
A;Reference number: A82035; MUID:20406833
A;Accession: B82197 zona occludens toxin VC1458 [imported] - Vibrio cholerae (group O1 strain N16961) C;Species: Vibrio cholerae C;Species: Vibrio cholerae C;Date: 18-Aug-2000 #sequence_revision 20-Aug-2000 #text_change 15-Sep-2000 C;Accession: B82197 Query Match Best Local Similarity Thehes 7; Conserve ş 뮰 1 GRLCVQP 7 |||||| 31 GRLCVQP 37 position: Conservative 87.0%; Score 40; DB 2; 100.0%; Pred. No. 4.1; tive 0; Mismatches 0; Indels Length 447; 0 Gaps 0,

Query Match

82.6%;

Score 38;

DB 2;

Length 399;

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genome polyprotein - hepatitis C virus (isolate JK4) (fragment) N;Contains: core protein; envelope protein 1; nonstructural pro C;Species: hepatitis C virus A;Variety: isolate JK4
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                                                                                                                                                                                                                                                                                                        A; Notecule type: DNA
A; Molecule type: DNA
A; Residues: 1-505 <STO>
A; Cross-references: GB: AE004779; GB: AE004091; NID: g9949735; PIDN: AAG06970.1; GSPDB: GN001
                                                                           S18032
                                                                                                                                                                                                                                                                                        A; Gene: glpK; PA3582
C; Superfamily: xylul
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A; Note:
                                                                                          RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                         A;Title: Complete genome sequence of Beeudomonas aeruginosa A;Reference number: A82950; MUID:20437337 A;Accession: H83196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   R;Stover, C.K.; Pham, X.Q.; Erwin, A.L.; Mizoguchi, S.D.; adman, S.; Yuan, Y.; Brody, L.L.; Coulter, S.N.; Folger, F. Lory, S.; Olson, M.V. Nature 406, 959-964, 2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              glycerol kinase PA3582 [imported] - Pseudomonas aeruginosa (strain PAO1)
C;Species: Pseudomonas aeruginosa
C;Date: 15-Sep_2000 #sequence_revision 15-Sep-2000 #text_change 31-Dec-2000
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A;Accession: A43864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C;Accession: A43864
R;Baudry, B.; Fasano, A.; Ketley, J.; Kaper, J.B. Infect. Immun. 60, 428-434, 1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           н83196
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Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Cross-references: GB:M83563; NID:g155314; PIDN:AAA27582.1; PID:g155315 Note: sequence extracted from NCBI backbone (NCBIN:77488, NCBIP:77491)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Molecule type: DNA
Residues: 1-399 <BAU>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;Species: Vibrio cholerae
;Date: 10-Mar-1993 #sequence_revision 18-Nov-1994 #text_change
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5; Conserv
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    Vibrio cholerae

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                                                                                                                                                                                                                      Score 37; DB Pred. No. 17;
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0; Mismatches
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3.9;
                                  nonstructural protein
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                                 2; NS1/E2 protein
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Larbig,
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K.; Lim,
A; Accession:
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RESULT 7

S49375

Glycoprotein G - simian herpesvirus B
glycoprotein G - simian herpesvirus B
ylycoprotein G - simian herpesvirus B
C; Species: simian herpesvirus B
C; Species: simian herpesvirus B
C; Date: 199-Mar-1997 #sequence_revision 19-Mar-1997 #text_change 05-Nov-1999
C; Accession: S49525
R; Slomka, M.J; Brown, D.W.
submitted to the EMBL Data Library, October 1994
submitted to the EMBL Data Library, October 1994
A;Description: Complete nucleotide sequence A;Reference number: $49525
A;Accession: caners
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Genetic code: SGC3
C; Superfamily: xylul
C; Keywords: phosphot
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A;Residues: 1-508 <TIGR>
A;Cross-references: GB:U39682; GB:L43967; NID:g1045702; PID:g1045709; TIGR:MG038
A;Experimental source: strain G-37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Science 270, 397-403, 1995
A; Title: The minimal gene cc
A; Reference number: A64200;
A; Accession: B64204
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C; Accession: B64204
R; Fraser, C.M.; Goca
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A) Experimental source: isolate JK4
C) Superfamily: hepatitits C virus genome polyprotein
C; Superfamily: hepatitits C virus genome protein;
C; Keywords: capsid protein; core protein; envelope protein #status predicted <MAT1>
F; 191_Product: core protein #status predicted <MAT2>
F; 384-733/Product: NSI/E2 protein #status predicted <MAT3>
F; 384-733/Product: NSI/E2 protein #status predicted <MAT3>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Status: preliminary; nucleic acid sequence not shown; translation not shown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C;Species: Mycopiasma genitalium
C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 07-Dec-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     glycerol kinase (EC 2.7.1.30) - Mycoplasma genitalium
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A; Residues: 1-782 <HON>
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A;Accession: Giorn
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C;Accession: S18032
R;Honda, M.; Kaneko, S.; Masashi, U.; Kobayashi, K.; Murakami, S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Cross-references: EMBL: X61594
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Best Local
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phosphotransferase
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the EMBL Data Library, September 1991
n: Sequence analysis of putative structural regions of Hepatitis C Virus
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62.5%;
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0; MUID:96026346
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75.0%;
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Pred. No.
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Pred. No.
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41;
                                   simian herpes
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                                   B virus glycoprotein G
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A;Molecule type: DNA
A;Residues: 1-593 <SLO>
A;Cross-references: EMBL:246268; NID:g560495; PIDN:CAA86431.1; PID:g580496
A;Experimental source: isolate Cyno 2
C;Keywords: glycoprotein
                                                                                                            A;Residues: 1-255 <STO>
A;Cross-references: GB:AE004918; GB:AE004091; NID:g9951336; PIDN:AAG08433.1; GSPDB:GN00
A;Experimental source: strain PAO1
                                                                                                                                                                                             A;Title: Complete genome sec
A;Reference number: A82950;
A;Accession: G83014
                                                                                                                                                                                                                                             R:Stover, C.K.; Pham, X.Q.; Erwin, adman, S.; Yuan, Y.; Brody, L.L.; (Lory, S.; Olson, M.V. Nature 406, 959-964, 2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         R;Stover, C.K.; Pham, X.Q.; Erwin, A.L.; Mizoguchi, S.D.; adman, S.; Yuan, Y.; Brody, L.L.; Coulter, S.N.; Folger, F.; Lory, S.; Olson, M.V.
Nature 406, 959-964, 2000
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A; Residues: 1-255 <S
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A; Residues: 1-96 <ST
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C;Species: Pseudomonas aeruginosa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Status: preliminary
                                                                                                                                                                            Status: preliminary
                                                                                                                                                                                                                                                                                                                            ;Species: Pseudomonas aeruginosa;Date: 15-Sep-2000 #sequence_revision
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Best L
 Matches 6; Conserv
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Best Local Similarity
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6; Conserv
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50; MUID:20437337
                73.9%;
75.0%;
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50.0%;
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Pred. No.
                Pred.
                                Score 34;
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Pred. No.
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Mismatches
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                NO.
                35,
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K.R.; Kas, A.; Larbig,
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K.R.; Kas, A.;
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K.; Lim,
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C;Superfamily: equine infectious anemia virus env polyprotein
C;Keywords: coat protein; 91ycoprotein; polyprotein; transmembrane protein
F;1-22/Domain: signal sequence #status predicted <GGP>
F;23-444/Product: coat protein gp90 #status predicted <GGP>
F;445-859/Product: coat protein gp95 #status predicted <GGP>
F;446-472/Domain: transmembrane #status predicted <TN1>
F;617-636/Domain: transmembrane #status predicted <TNN>
F;40,112,141,148,186,214,233,244,340,368,399,406,411,483,490,550,557,752/Binding
                                                                                 C;Superfamily: equine infectious anemia virus env polyprotein
C;Keywords: coat protein; glycoprotein; polyprotein; transmembrane protein
E;1-22/Domain: signal sequence #status predicted <SIG>
E;23-859/Product: env polyprotein #status predicted <ENV>
E;23-444/Product: coat protein gp90 #status predicted <GPP>
E;445-859/Product: coat protein gp45 #status predicted <GGP>
E;445-859/Product: coat protein gp45 #status predicted <GGP>
E;446-472/Region: hydrophobic
E;446-472/Region: hydrophobic
E;40,112,141,148,186,214,233,244,340,368,399,406,411,483,490,550,557/Binding site:
                                                                                                                                                                                                                                                                                                                             A;Molecule type: DNA
A;Residues: 1-859 <PER>
A;Cross-references: GB:M87581; NID:g290627; PIDN:AAA43005.1;
                                                                                                                                                                                                                                                                                                                                                                                                     A; Reference number: A41991; A; Accession: C41991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                env polyprotein precursor - equine infectious anemia virus (strain CL22)
N;Alternate names: coat polyprotein
N;Contains: coat protein gp45; coat protein gp90
C;Species: equine infectious anemia virus
A;Note: host Equus caballus (domestic horse)
C;Date: 30-Jun-1993 #sequence_revision 30-Jun-1993 #text_change 16-Jul-1999
C;Accession: C41991
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A;Title: The surface envelope protein gene region of equine infectious anemia virus A;Reference number: A41991; MUID:92292230
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A; Residues: 1-859
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Query Match
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Similarity
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  73.9%;
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  Score
Pred.
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  DB 1;
1e+02;
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1e+02;
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Matches

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Conservative

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A;Gene: env
C;Superfamily: equine infectious anemia virus env polyprotein
C;Superfamily: equine infectious anemia virus env polyprotein
C;Reywords: coat protein; glycoprotein; polyprotein; transmembrane protein
E;1-22/Domain: signal sequence #status predicted <SIG>F;23-444/Product: coat protein gp90 #status predicted <GP1>F;43-445/Product: coat protein gp45 #status predicted <GP2>F;445-859/Product: coat protein gp45 #status predicted <TNI>F;446-472/Domain: transmembrane #status predicted <TNI>F;617-636/Domain: transmembrane #status predicted <TNI>F;617-636/Domain: transmembrane #status predicted <TNI>F;40,112,141,148,186,214,233,244,340,368,399,406,411,483,490,550,557,752/Binding site:
                                                                          F;1-22/Domain: signal sequence #status predicted <SIGS
F;23-444/Product: coat protein gp90 #status predicted <CP1>
F;75-93/Domain: transmembrane #status predicted <TM1>
F;445-859/Product: coat protein gp45 #status predicted <CP2>
F;446-462/Domain: transmembrane #status predicted <TM2>
F;614-636/Domain: transmembrane #status predicted <TM3>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              env polyprotein precursor (clone P3.2-1) - equine infectious ane %;Contains: coat protein 9p45; coat protein 9p90 C;Species: equine infectious anemia virus A;Note: host Equus caballus (domestic horse) C;Date: 31-Mar-1991 *sequence_revision 31-Mar-1991 *text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        R;Payne, S.L.; Fang, F.D.; Liu, C
Virology 161, 321-331, 1987
A;Title: Antigenic variation and
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C:Accession: C27842
R:Kawakami, T.; Sherman, L.; Dahlberg, J.; Gazit, A.; Yaniv Virology 158, 300-312, 1987
A:Title: Nucleotide sequence analysis of equine infectious A; Reference number: A27842; MUID:87236196
A; Accession: C27842
                                                                                                                                                                                                                                                                                                                                                                              A; Molecule type: genomic RNA
A; Residues: 1-859 < PAY>
                                                                                                                                                                                                                                                                                                                                                                                                                              A; Reference number: A34027; A; Accession: A34027
                                                                                                                                                                                                                                                                                                     A;Gene:
                                                                                                                                                                                                                                                                                                                                             A; Cross-references:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C; Accession: A34027
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Molecule type: DNA
A; Residues: 1-859 <K
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                                                                                                                                                                                                                                                           Superfamily: equine infectious anemia virus env polyprotein
                                                          787-807/Domain: transmembrane
                                                                                                                                                                                                                                                   Keywords: coat
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Best Local Similarity
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5-835/Domain: transmembrane #status predicted <TM5>
,112,141,148,186,214,233,244,340,368,399,406,411,422,483,490,550,557,752/Binding
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                                                                                                                                                                                                                                                                                                                                             GB:M18385;
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100.0%; Pred. No. 1e-
Live 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Liu, C.P.; Dhruva,
                                                                                                                                                                                                                                                                                                                                                                                                                                                n and lentivirus
MUID:88072070
                                                                                                                                                                                                                                                                                                                                        NID:g323830; PIDN:AAA66407.1; PID:g323831
                                                        #status predicted
                                                                                                                                                                                                                                           polyprotein;
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C;Accession: C34027
R;Payne, S.L.; Fang, F.D.; Liu, C.P.; Dhruva, B.R.; Rwambo, P.; I virology 161, 321-331, 1987
A;Title: Antigenic variation and lentivirus persistence: variation A;Reference number: A34027; MUID:88072070
A;Accession: C34027
A;Accession: C34027
A;Molecule type: genomic RNA
A;Residues: 1-859 < PAY>
A;Cross-references: GB:M18387; NID:g323834; PIDN:AAA66409.1; PID: C;Genetics:
C;Genetics:
A;Gene: env
C;Superfamily: equine infectious anemia virus env polyprotein C;Keywords: coat protein; glycoprotein; polyprotein; transmembran F;1-22/Domain: signal sequence #status predicted <SIG>
F;23-444/Product: coat protein gp90 #status predicted <CP1>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Note: host Equus caballus (domestic horse)
C;Date: 31-Mar-1991 #sequence_revision 31-Mar-1991 #text_change
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Best Local Similarity
""+ hes 6; Conserv
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A; Residues: 1-859 < PAY>
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A;Title: Antigenic variation and lentivirus
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Best Local Similarity
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erences: GB:M18387; NID:g323834; PIDN:AAA66409.1; PID:g323835
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Gapop 10.0 , Gapext 0.5
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WIF1_HOUSE
GLPK_MYCHE
P73_HUMAN
OGP_SHEEP
P73_HUMAN
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P73_HUMAN
P73_CERAE
ITB3_MCERAE
Y281_METUA
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Q51390 pseudomonas
Q24495 arabidopsis
P47284 mycoplasma
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7 neurospora
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ALIGNMENTS	DCOS_ECOLI SM4A_MOUSE ITB3_HUMAN AXNI_HUWAN VGLB_HCMVT PK02_HUMAN AXNI_MOUSE YLB8_CAEEL FBN2_MOUSE IODI_RAT EUTJ_ECOLI EUTJ_SALTY
	P24169 escherichia Q62178 mus musculu P05106 homo sapien Q15169 homo sapien Q151619 homo sapien Q13563 homo sapien Q35625 mus musculu P46582 caenorhabdi Q61555 mus musculu P477277 escherichia P41794 salmonella

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(6) CHARACTERIZATION. MEDLINE-91271365; PubMed-2052603; Fasano A., Baudry B., Pumplin D.W., Wasserman S.S., Tall B.D.,	NA se	Nierman W.C Calanos J.J	M.D. Vamathevan J., Bass S., Qin H., Dragoi I., Sella	elberg J.F., Eisen J.A., Nelson W.C., Clayton R.A., Gw on R.J., Haft D.H., Hickey E.K., Peterson J.D., Umayam	961 / SEROTYPE O1; PubMed=10952301;		Submitted (JAN-2000) to the EMBL/GenBank/DDBJ databases.	/ SEROTYPE 01;	FROM N P	(JAN-1999) to the EMBL/GenBank/DDBJ databases.	i-Jie Z., Xiang-Fu W.;	STRAIN=0139-TOR OGAWA;		from Vibrio cholerae KNIH002 isolat chag Hoiji 35:205-210(1999).	"Cloning and nucleotide sequence analysis of the virulence gene	иноо2;	CE FROM N.A.		# 0	A., Ketley J., Kaper J.B.;	LASSI	[1] SEQUENCE FROM N.A.	NCBI_TaxID=666;		XIN (ZONUI	01-OCT-2000 (Rel. 40, Last sequence update)	(Rel. 30, Created)	BCH OT_VIBCH S	1 1

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RESULT 2
GLPK_PSEAE
ID GLPK_P
AC Q51390
DT 01-OCT
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DE GLYCER
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DE GLYCER
DE GLYCE
GN Pseudo
OC Bacter
CC Pseudo
OC BACTER
DE SEQUEN
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01-OCT-2000 (Rel.
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GLYCCEROL KINASE (
                                                                                                                                                  SEQUENCE FROM N.A.

STRAIN-ATCC 15692 / PAO1;

MEDLINE-97286544; PubMed-9141691;

Schweizer H.P., Jump R., Po C.;

"Structure and gene-polypeptide relationships of th
glycerol diffusion facilitator (glpF) and glycerol
pseudomonas aeruginosa.";

Microbiology 143:1287-1297(1997).
MEDLINE-20437337; PubMed-10984043;
Stover C.K., Pham X.-Q.T., Erwin A.L., Mizoguchi S.D., Warrener
Hickey M.J., Brinkman F.S.L., Hufnagle W.O., Kowalik D.J., Lagro
                                                                                                                     SEQUENCE FROM
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GLPK OR PA3582.
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Q51390;
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EMBL; AF175708; AAD51358.1; --
EMBL; AF23049; AAD26854.1; --
EMBL; AF220606; AAF29547.1; --
EMBL; AE004224; AAF29615.1; --
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Enterotoxin;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (Rel. 35, Created)
(Rel. 40, Last sequence update)
(Rel. 40, Last annotation update)
NASE (EC 2.7.1.30) (ATP:GLYCEROL 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           email to license@isb-sib.ch).
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                                                                                                                     N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                          gamma subdivision; Pseudomonadaceae;
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K -> R (IN STRAI
IKTENDKKGLNSIF -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 38;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3C7424B758176774 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
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-> A (IN STRAINS 569B AND 86015).
-> A (IN STRAIN 569B).
-> A (IN STRAIN 569B).
-> S (IN STRAIN 86015).
-> R (IN STRAIN 86015).
FENDKKGLNSIF -> VKKEKEESIIKSFL (1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3-PHOSPHOTRANSFERASE
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                                                                                                                                                                                                     the region encoding
ol kinase (glpK) of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
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          Lagrou
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RESULT 3
GL2M_ARATH
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Best Local S
Matches 5
                                                                                                                                                               Eukaryota; Viridiplantae; Embr
Magnollophyta; eudicotyledons;
Brassicales; Brassicaceae; Arak
NCBI_TaxID=3702;
                                                                                                                                                                                                                                                024495; 024494; FRI; 331 AA.
15-DEC-1998 (Rel. 37, Created)
15-DEC-1998 (Rel. 37, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
HYDROXYACYLGLUTATHIONE HYDROLASE, MITOCHONDRIAL (GLYCXALASE II). (GLX II).
                                                     Plant Mol.
                                                                   thaliana.";
                                                                               Maiti M.K., Krishnasamy S.,
"Molecular characterization
                                                                                                          STRAIN=CV. WASSILEWSKIJA;
MEDLINE=98009983; PubMed=9349270;
                                                                                                                          SEQUENCE FROM N.A. STRAIN-CV. WASSILE
                                                                                                                                                                                                           Arabidopsis thaliana
Eukaryota; Viridiplar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CONFLICT
CONFLICT
CONFLICT
SEQUENCE
                                                                                                Maiti M.K.,
                                                                                                                                                                                                                                         GLX2-1
                                                                                                                                                                                                                                                                                                                                      GL2M_ARATH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way endiffed and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PROSITE; PS00445; FGGY_KINASES_2; 1.
PROSITE; PS00933; FGGY_KINASES_1; 1.
Glycerol metabolism; Transferase; Kinase;
NP_BIND 158 170 ATP (PROBABL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pfam; PF00370; FGGY;
PROSITE; PS00445; FG
PROSITE; PS00933; FG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Garber R.L., Goltry L., Tolentino E., Westbrock-Wadman S., Brody L.L., Coulter S.N., Folger K.R., Kas A., Larbig K., L. Smith K.A., Spencer D.H., Wong G.K.-S., Wu Z., Paulsen I.T. Reizer J., Saier M.H., Hancock R.E.W., Lory S., Olson M.V., "Complete genome sequence of Pseudomonas aeruginosa PAO1, and opportunistic pathogen.", Nature 406.959-964(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL; U49666; AAB57804.
EMBL; AE004779; AAG0697
HSSP; P08859; IGLB.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            InterPro;
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    nt Mol. Biol. 35:471-481(1997).

FUNCTION: THIOLESTERASE THAT CATALYSES THE HYDROLYSIS OF S-D-LACTOYL-GLUTATHIONE TO FORM GLUTATHIONE AND D-LACTIC ACID.

CATALYTIC ACTIVITY: (S)-(2-HYDROXYACYL)GLUTATHIONE + H(2)O -
                                                                                                                                                                                                                                                                                                                                                                                                                                   1 GRLCVQPG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CATALYTIC ACTIVITY: ATP + GLYCEROL = ADE
PATHWAY: RATE-LIMITING STEP IN GLYCEROL
SIMILARITY: BELONGS TO THE FUCOKINASE /
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   METABOLISM
                                                                                                                                                                                                                                                                                                                                                                                                          GOMCVEPG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GLYCEROKINASE / XYLULOKINASE FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity 62.95; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               104
109
505
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                                                                                                                                                                                                                                                                                                                                     STANDARD;
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AAG06970.1;
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104
109
55966
                                                                                                                                                                                                                       (Mouse-ear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          80.4%;
                                                                                                                                                                                       se-ear cress).
Embryophyta; Trachec
dons; core eudicots;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  M.
                                                                                                                                                                            Arabidopsis
                                                                              Owen H.A., Makaroff C. of glyoxalase II from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATP (PROBABLE).

H -> R (IN REF. 1).

A -> V (IN REF. 1).

C -> R (IN REF. 1).

C CC63A9AF8ABCF752 CF
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 37; DB
Pred. No. 6.5;
3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                            γ,
ACID
                                                                                                                                                                                                                                                                                                                                     PRT;
                                                                                                                                                                                                                                                                                                                                  331
                                                                                                                                                                                                      Tracheophyta;
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5.5;
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GLUCONOKINASE
                                                                                                                                                                                        pophyta; Spermatophyta;
Rosidae; eurosids II;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GLYCEROL UPTAKE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 505;
                                                                                                                                                                                                                                                              PRECURSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CRC64;
                                                                           .A.;
Arabidopsis
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K., Lim R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ι.Τ.,
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RESULT 4
GLPK_MYCGE
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Best Local Similarity
Matches 6; Conserv
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01-FEB-1996 (Rel
30-MAY-2000 (Rel
GLYCEROL KINASE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                or send
                                                                                                                                     SEQUENCE FROM N.A.

STRAIR-ATCC 33530 / G-37;

MEDLINE-96026346; PubMed-7569993;

Fraser C.M., Gocayne J.D., White O., Adams M.D., Clayton R.A., Fleischmann R.D., Bult C.J., Kerlavage A.R., Sutton G., Kelley J. Fritchman J.L., Weldman J.F., Small K.V., Sandusky M., Fuhrmann Nguyen D.T., Utterback T.R., Saudek D.M., Phillips C.A., Merrick Tomb J.-F., Dougherty B.A., Bott K.F., Hu p.-C., Lucier T.S., Peterson S.N., Smith H.O., Hutchison C.A. III, Venter J.C.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial
                                                                                            Peterson S.N., Smith H.O., Hutchison C.A. III, Venter "The minimal gene complement of Mycoplasma genitalium. Science 270:397-403(1995).

-I- FUNCTION: KEY ENZYME IN THE REGULATION OF GLYCEROL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         METAL
METAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EMBL; U90928; AAC49866.1; -. EMBL; U90927; AAC49865.1; -. InterPro; IPR001279; -. Pfam; PF00753; lactamase_B;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            METAL
 This SWISS-PROT entry
                                                                                                                                                                                                                                                                                             Mycoplasmataceae;
                                                                                                                                                                                                                                                                                                          Mycoplasma genitalium.
Bacteria; Firmicutes;
                                                                                                                                                                                                                                                                                                                                         GLPK OR MG038
                                                                                                                                                                                                                                                                                                                                                                                                                                       GLPK_MYCGE
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                                                                                                                                                                                                                                                                                NCBI_TaxID=2097;
                                                                                                                                                                                                                                                                                                                                                    (GLYCEROKINASE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 GRLCVQPG
                        CATALYTIC ACTIVITY: ATP + GLYCEROL = A PATHWAY: RATE-LIMITING STEP IN GLYCERO SIMILARITY: BELONGS TO THE FUCOKINASE GLYCEROKINASE / XYLULOKINASE FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COFACTOR: BINDS TWO ZINC IONS (BY SIMILARITY).
PATHWAY: GLYOXAL PATHWAY.
SUBCELLULAR LOCATION: MITOCHONDRIAL.
SIMILARITY: BELONGS TO THE GLYOXALASE II FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GOLCVWPG
                                                                                  METABOLISM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Zinc;
                                                                                                                                                                                                                                                                                                                                                 (Rel. 33, Created)
(Rel. 33, Last sequence update)
(Rel. 39, Last annotation update)
NASE (EC 2.7.1.30) (ATP:GLYCEROL 3
ASE) (GK).
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131
133
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136
189
208
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331
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 s
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copyright.
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MITOCHONDRION (POTENTIAL).
HYDROXYACYLGLUTATHIONE HYDRO
ZINC 1 (BY SIMILARITY).
ZINC 1 (BY SIMILARITY).
ZINC 2 (BY SIMILARITY).
ZINC 2 (BY SIMILARITY).
ZINC 2 (BY SIMILARITY).
ZINC 1 (BY SIMILARITY).
ZINC 1 AND 2 (BY SIMILARITY).
ZINC 1 AND 2 (BY SIMILARITY).

ZINC 1 AND 2 (BY SIMILARITY).

ZINC 1 AND 2 (BY SIMILARITY).

ZINC 1 AND 2 (BY SIMILARITY).
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Pred. No. 11;
1; Mismatches
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                                                    IN GLYCEROL
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 is
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2 (BY SIMILARITY).
1 AAC49865).
                                        ADP + GLYCEROL 3.
ROL UTILIZATION.
E / GLUCONOKINASE
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produced
                                                                                                                                                                                                                                                                                                          group;
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                                                                                               GLYCEROL UPTAKE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 331;
                                                                                                                                                                                                                                                                                                            Mollicutes;
through
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                                                                    3-PHOSPHATE
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 collaboration
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RESULT IN ACCORDANCE TO THE PROPERTY OF THE PR
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Best Local
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InterPro; IPR005/,
Pfam; PF00370; EGGY; 1.
PROSITE: PS00445; FGGY_KINASES_2; 1.
PROSITE: PS00933; FGGY_KINASES_1; 1.
PROSITE: PS00933; FGGY_KINASES_1; 1.
PROSITE: PS00933; FGGY_KINASES_1; 1.
PROBABLE)
169
ATP (PROBABLE)
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ATP (PROBABLE)
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ATP (PROBABLE)
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ATP (PROBABLE)
CHAIN
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TRANSMEM
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            P22427;
01-AUG-1991
01-AUG-1991
15-DEC-1998
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use by
modified
                                                                                                                                Coat
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HSSP; P08859; 1GLB.
TIGR; MG038;
                                                                                                                 SIGNAL
                                                                                                                                                Pfam; PF01045; EIAV_GP45; Pfam; PF00971; EIAV_GP90;
                                                                                                                                                                                                                       EMBL; M18385; AAA66407.1;
PIR; A34027; VCLJE1.
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39683; AAC71754
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5; Conserv
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F.D., Liu C.P.,
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ENV POLYPROTEIN.
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                       PIR; B34027; VCLJE2.
Interpro; IPRO01027; -.
Interpro; IPRO01361; -.
Pfam; PF01045; EIAV_GP45; 1
Pfam; PF00971; EIAV_GP90; 1
 SIGNAL
                                                                              This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                   01-AUG-1991
01-AUG-1991
15-DEC-1998
                                                                  EMBL; M18386; AAA66408.1;
                                                                                                                                                 "Antigenic variation and lentivirus persistence: variations in envelope gene sequences during EIAV infection resemble changes reported for sequential isolates of HIV.";
Virology 161:321-331(1987).
                                                                                                                                                                                     Payne S.L., Fang F.D., Liu C.P., i Montelaro R.C.;
                                                                                                                                                                                                                                                                  GP90;
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P22428;
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CARBOHYD
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MEDLINE-88072070; E
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AUG-1991 (Rel. 19, Last sequence update)
DEC-1998 (Rel. 37, Last annotation update)
POLYPROTEIN PRECURSOR (COAT POLYPROTEIN)
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        Polyprotein; Transmembrane; POTENTIAL.
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Pred. No.
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                                                                                  "Antigenic variation and lentivirus persistence: variations in envelope gene sequences during ETAV infection resemble changes reported for sequential isolates of HTV."; Virology 161:321-331(1987).
                                                                                                                               SEQUENCE FROM N.A.
MEDLINE-88072070; PubMed-2825406;
Fang F.D., Liu C.P.,
                                                                                                                                                                                                            01-AUG-1991 (Rel. 19, Created)
01-AUG-1991 (Rel. 19, Last sequence update)
15-DEC-1998 (Rel. 37, Last annotation update)
ENV POLYPROTEIN PRECURSOR (COAT POLYPROTEIN)
GP90; COAT PROTEIN GP45].
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P22429;
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Montelaro R.C.;
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            Tronick S. Submitted
                                                                                                                                                        Equine infectious anemia virus (clone 1369) (EIAV). Viruses; Retrold viruses; Retroviridae; Lentivirus. NCBI_TaxID=11670;
                                                                                                                                                                                                      ENV_EIAV9 STANDARD; PRT; 859 AA.

P13306;

01-JUL-1989 (Rel. 11, Created)

01-FBB-1996 (Rel. 33, Last sequence update)

15-DEC-1998 (Rel. 37, Last annotation update)

ENV POLYPROTEIN PRECURSOR (COAT POLYPROTEIN) [CONTAINS: COAT PROTEIN GP90; COAT PROTEIN GP45].
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pfam; PF01045; EIAV_GP45; Pfam; PF00971; EIAV_GP90;
                                                        "Nucleotide sequence analys proviral DNA."; Virology 158:300-312(1987).
                                                                                               Tronick S.R., Aaronson S.
                                                                                                                     SEQUENCE FROM N.A. MEDLINE-87236196;
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PIR; C34027; VCLJE3
                                    REVISIONS
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SEQUENCE
MEDLINE-9229230; PubMed-1318398;
Perry S.T., Flaherty M.T., Kelley M.,
Coggins L., Whetter L., Lengel C.R.,
"The surface envelope protein gene re
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InterPro; IPR001361;
Pfam; PF01045; EIAV_GP45;
Pfam; PF00971; EIAV_GP90;
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                                                                                             SEQUENCE FROM
                                                                                                                                   Equine infectious anemia virus (clone CL22) (EIAV). Viruses; Retroid viruses; Retroviridae; Lentivirus. NCBI_TaxID=31675;
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Pfam; PF00971; EIAV_GP90; 1.
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J. Virol. 66:4085-4097(1992).
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APR-1990 (Rel. 14, Last sequence update)
DEC-1998 (Rel. 37, Last annotation update)
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                               ENV_EIAVY STANDARD; PRT; 859 AA. P06751; 01-JAN-1988 (Rel. 06, Created) 01-JAN-1988 (Rel. 06, Last sequence update) 15-DEC-1998 (Rel. 37, Last annotation update) ENV POLYPROTEIN PRECURSOR (COAT POLYPROTEIN) [CONTAINS: GP90; COAT PROTEIN GP45]....
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Equine infectious anemia viruses; Retroid viruses; NCBI_TaxID=11672;
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Nucleic Acids Res. 18:196-196(1990).
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InterPro; IPR001361;
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RESULT 12
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K., Stiegler G.,
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Smallwood P.M., Samos C.H., Nusse R., Dawid I.B., Nathans J.,
"A new secreted protein that binds to Wnt proteins and inhibits
activities.",
Rature 398.431-436(1999).
-I- FUNCTION: BINDS TO WNT PROTEINS AND INHIBITS THEIR ACTIVITIE
BE INVOLVED IN MESODERM SEGMENTATION.
-I- SUBCELLULAR LOCATION: SECRETED.
-I- SIMILARITY: CONTAINS 5 EGF-LIKE DOMAINS.
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Mammalia; Eutheria;
NCBI_TaxID=9606;
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6; Conserv
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             STANDARD;
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Mus musculus
Eukaryota; Me
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activities.";
Nature 398:431-436(1999).
-I- FUNCTION: BINDS TO WNT PROTEINS AND INHIBITS TH BE INVOLVED: IN MESODERM SECHENTATION.
-I- SUBCELLULAR LOCATION: SECRETED.
-I- TISSUE SPECIFICITY: EXPRESSION HIGHEST IN HEART
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PROSITE; PS00022; EGF_1; 5.
PROSITE; PS01186; EGF_2; 4.
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InterPro; IPR000561; -.
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MEDLINE-99215557; PubMed-10201374;
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01-OCT-2000 (Rel. 40,
01-OCT-2000 (Rel. 40,
WNT INHIBITORY FACTOR
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Metazoa; Rodentia; S
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Signal; Developmental protein.
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-LINKED (GLCNAC. . .) (POTENTIAL) -LINKED (GLCNAC. . .) (POTENTIAL) E3765F2642B2BC9A CRC64;
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I.B., Nathans J.;
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P75064;
P75064;
O1-NOV-1997 (Rel. 35, Created)
O1-NOV-1997 (Rel. 35, Last sequence update)
O1-OCT-2000 (Rel. 40, Last annotation update)
GLYCEROL KINASE (EC 2.7.1.30) (ATP:GLYCEROL 3-PHOSPHOTRANSFERASE)
(GLYCEROKINASE) (GK).
GLPK OR MPNO50 OR MP104.
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HSSP; P08859; 1GLB.
InterPro; IPR000577; -.
Pfam; PF00370; FGGY; 1.
PROSITE; PS00445; FGGY_KINASES_2; 1.
PROSITE; PS00933; FGGY_KINASES_2; 1.
Glycerol metabolism; Transferase; Kinase; ATP-binding.
NP_BIND 157 169 ATP (PROBABLE).
SEQUENCE 508 AA; 56591 MW; 8C60F0132DFD62A6 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         *Complete sequence analysis of the genome of the bacterium Mycoplasma pneumoniae.";
Nucleic Acids Res. 24:4420-4449(1996).
-I- FUNCTION: KEY ENZYME IN THE REGULATION OF GLYCEROL UPTAKE AND METABOLISM.
-I- CATALYTIC ACTIVITY: ATP + GLYCEROL - ADP + GLYCEROL 3-PHOSPHATE.
-I- PATHWAY: RATE-LIMITING STEP IN GLYCEROL UTILIZATION.
-I- SIMILARITY: BELONGS TO THE FUCOKINASE / GLUCONOKINASE /
GLYCEROKINASE / XYLULOKINASE FAMILY.
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STRAIN-ATCC 29342 / M129;
MEDLINE-97105885; PubMed-8948633;
Himmelreich R., Hilbert H., Plagens H., Pirkl E., Li B.-C.
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Bacteria; Firmicutes; Bacillus/Clostridium group; Mollicutes;
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258 GQLCVEP 264
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NCBI_TaxID=2104;
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Q913V6 vibrio chol
Q917Q6 vibrio chol
Q917Q6 vibrio chol
Q91851 homo sapien
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072792 equine infe
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Matches 7; Conserv
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"A set of ordered cosmids and a detailed genetic and physical map for the 8 Mb Streptomyces coelicolor A3(2) chromosome.";

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EMBL, ALO31182; CAA20169.1; -.
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Bacteria; Firmicutes; Actinobacteria; Actinobacteridae;
                                                                                                                                                                                                                Lipoprotein
SEQUENCE
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Submitted (AUG-1998) to the EMBL/GenBank/DDBJ databases
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NCBI_TaxID-1902;
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STRAIN=EL TOR N16961 / SEROTYPE 01;
MEDLINE=20406833; PubMed=10952301;
Heldelberg J.F., Elsen J.A., Nelson W.C., Clayton R.A., Gwinn M.L.,
Heldelberg J.F., Hickey E.K., Peterson J.D., Umayam L.A.,
Dodson R.J., Haft D.H., Hickey E.K., Peterson J.D., Umayam L.A.,
Gill S.R., Nelson K.E., Read T.D., Tettelin H., Richardson D.,
Gill S.R., Nelson K.E., Read T.D., Bass S., Qin H., Dragoi I., Sellers
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STRAIN-0139-TOR OGAWA;
Wei-Jie Z.,
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                                                                                                                                                                                                                                                  Submitted [3]
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Misainmurhag Hoiji 35:205-210(1999).
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01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-OCT-2000 (TrEMBLrel. 15, Last annotation update)
ZONULAR OCCLUDENS TOXIN (ZONA OCCLUDENS TOXIN).
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"Infectious CTXPh1 and the vibrio pathogenicity island prophage vibrio mimicus: evidence for recent horizontal transfer between mimicus and V. cholerae.";
Infect. Immun. 68:1507-1513(2000).
EMBL; AR207857; AAF40142.1; -
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NCBI_TaxID=666;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Vibrio cholerae.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q9R3V6
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Bacteria; Proteobacteria;
NCBI_TaxID=674;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Vibrio mimicus.
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323 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      247
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36306 MW;
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                                                                                                                                                                                                                                                          , Xiang-Fu W.;
of zot Gene from Vibrio cholerae.
the EMBL/GenBank/DDBJ databases.
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, Last sequence upo
, Last annotation :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRT;
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Q9L7Q6
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075851;
01-NOV-1998
SEQUENCE FROM N.A. Leonard S., Graves T., Strowmatt C.; The sequence of Homo sapiens PAC clone DJ0751H13."; Submitted (JUN-1998) to the EMBL/GenBank/DDBJ databa [2]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q917Q6;
Q917Q6;
Q1-OCT-2000
Q1-OCT-2000
Q1-OCT-2000
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STRAIN-8015,
Kan B., Liu Y.Q., Qi G.M., Gao S.Y.,
Wibrio cholerae nct-CTXphi whole generation of the statement o
                                                                                                                                            Eukaryota; Metazoa;
Mammalia; Eutheria;
NCBI_TaxID=9606;
[1]
                                                                                                                                                                                                                                                                01-NOV-1998 (TrEMBLrel. 08, 01-NOV-1998 (TrEMBLrel. 08, 01-OCT-2000 (TrEMBLrel. 15, WUGSC:H_DJ0751H13.1 PROTEIN
                                                                                                                                                                                                                                         Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Submitted (JAN-2000) to the EMBL/GenBank/DDBJ EMBL; AF220606; AAF29547.1; -: SEQUENCE 399 AA; 44990 MW; CF6A3DBCC9E23EF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  rstA(RstA), rstB(RstB),
genes.";
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EMBL: AF175708: AAD51358.1;

EMBL: AF233049: AAD26854.1;

EMBL: AE004224: AAF94615.1;

TIGR: VC1458;
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Salzberg
Fraser C.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            291 GRLCVQDG
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S.L.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         298
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                                                                                                                                                                                       Chordata;
Primates;
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Colwell R.
                                                                                                                                                                                                                                                                   (FRAGMENT).
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Last annotation update)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pred. No. 13;
); Mismatches
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Pred. No.
                                                                                                                                                                                 Craniata; V
Catarrhini;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CF6A3DBCC9E23EE1 CRC64;
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                                                                                                                                                                                                                                                                                         sequence up
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orfU(OrfU), ace(Ace) and zot(Zot)
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Mekalanos ;
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01-MAY-2000
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                              MEDLINE=93119270; PubMed=8380322;
Honda M., Kaneko S., Unoura M., Kobayashi K., Murakami S.;
"Sequence analysis of putative structural regions of hepatitis (
isolated from 5 Japanese patients with hepatocellular carcinoma
Arch. Virol. 128:163-169(1993).
                                                                                                                                                                                  Q68952
Q68952;
                                                                                                                                                                                                                                                                                                                                                                                                               PFAM; PF00057; ldl_recept_a; pFAM; PF00090; tsp_1; l4. PFAM; PF00094; vwd; 5. PFAM; PF00754; F5_F8_type_C; PFAM; PF01826; TIL; 9.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   INTERPRO;
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                                                                         SEQUENCE FROM N.A. STRAIN-PATIENT 4: HEPATITIS C VIRUS, JK4;
                                                                                                                                                                                                                                     3234 GAICVQPG
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HSSP; P01130; 1/
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                        EMBL; X61594;
                                                                                                              Hepacivirus
                                                                                                                      Viruses; ssRNA positive-strand
                                                                                                                              Hepatitis C virus
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PS00225;
PS00280;
PS00340;
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4123
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                        CAA43791.1;
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6; COPPER_BLUE; UNKNOWN_1.
5; CRYSTALLIN_BETAGAMMA; UNKNOWN_1.
0; BPTI_KUNITZ; UNKNOWN_1.
0; RECEPTOR_CYTOKINES_2; UNKNOWN_6.
9; LDLRA_1; 9.
8; LDLRA_2; 20.
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                      RA Ballew R. M., Basu A., Au, Barchdale J., Bayraktaroglu L., Beasley E.M., RA Beeson K.Y., Benos P.V., Berman B.P., Bhandari D., Bolshakov S., RA Borkova D., Botchan M.R., Bouck J., Brokstein P., Brottier P., Burtis K.C., Busam D.A., Butler H., Cadieu E., Center A., Chandra I., RA Burtis K.C., Busam D.A., Butler H., Cadieu E., Center A., Chandra I., RA Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P., RA Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P., RA Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P., RA Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P., RA Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P., RA Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P., RA Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P., RA Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P., RA Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Fleischmann W., RA Dodson K., Doup L.E., Downes M., Dugan-Rocha S., Plukov B.C., Dunn P., RA Glodek A., Gong F., Gorrell J.H., Gu Z., Gelbart W.M., Glasser K., RA Harris N.L., Harvey D., Heiman T.J., Hernandez J.R., Houck J., RA Harris N.L., Harvey D., Heiman T.J., Hernandez J.R., Houck J., RA Harris N.L., Harvey D., Heiman T.J., Wei M.-H., Ibeywam C., Jalai M., Kalush F., Karpen G.H., Ke Z., Kunja D., Lai Z., RA Lasko P., Lei Y., Levitsky A.A., Li J., Li Z., Liang Y., Lin X., RA Lasko P., Lei Y., Levitsky A.A., Li J., Li Z., Liang Y., Lin X., RA Lasko P., Lei Y., Levitsky A.A., Li J., Li Z., Liang Y., Lin X., RA Lasko P., McPherson D., McIntosh T.C., McLeod M.P., McPherson D., McPherson D., McIntosh T.C., McDadd M.P., McPherson D.L., RA Ra Merkulov G., Milshina N.Y., Mobarry C., Morris J., McPherson D.L., RA Ra Neison D.R., Nelson K.A., Nixon K., Nusskern D.R., Pacleb J.M., Reese M.G., RA Spier E., Siden-Kiamos I., Simpson M., Skupski M.P., Smith T., RA Shue B.C., Siden-Kiamos I., Simpson M., Skupski M.P., Smith T., RA Shue B.C., Staphan M., Shao Q., Zheng L., Ra Yang S., Yao Q.A., Packer J.C., Shao Q
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Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta;
Eukaryota; Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;
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"The genome sequence of Dro
Science 287:2185-2195(2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A. STRAIN-BERKELEY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE=20196006; PubMed=10731132;
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75.0%;
                  Drosophila melanogaster.";
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REMBL; AE003472; AAF47559.1; -.

R HSSP; P08859; IGLC.

R FLYBASE; FB9n003526; CG7995.

R INTERPRO; IPR000577; -.

R PFAM; PF00370; FGGY; 1.

R PFAM; PF00370; FGGY; 1.

VARSPLIC 1

VARSPLIC 1

VARSPLIC 1

VARSPLIC 578 AA; 64905 MW; D77429D03B65D8D3 CRC64;
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Q1-OCT-2000 (TrEMBLrel. 15, Last sequence update)
01-OCT-2000 (TrEMBLrel. 15, Last annotation update)
01-CT-2000 (TrEMBLrel. 15, Last annotation update)
CDMA FL/10573 FIS, CLONE NTZRP2003177.
Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Eukaryota; Metazoa; Chordata; Catarrhini; Hominidae
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HHRO1SPB.
Homo sapiens (Human).
Homo sapiens (Human).
Tharvota; Metazoa; Chordata; C.
  SEQUENCE FROM N.A.
Isogai T., Ota T., Hayashi K.,
Nishikawa T., Nagai K., Sugano
Tanase T., Nomura Y., Togiya S.
                                                                                                                                                                                                                                                                                                                                        6DAN60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MCKay M.J., van der Spek P., Kanaar R., Bootsma D., Hoeijmaker. 
"hHR2LspB, a second human gene homologous to the rad21 
Schizosaccharomyces pombe DNA double strand break repair gene. 
Submitted (MAY-1997) to the EMBL/GenBank/DDBJ databases. 
EMBL; AF006264; AAD01193.1; -

NON_TER 547 547 
SEQUENCE 547 AA; 62613 MW; 544AA31F2D038D7B CRC64;
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01-MAY-1999 (TrEMBLrel.
01-JUN-2000 (TrEMBLrel.
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5; Conserv
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ilarity 75.0%;
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62.5%;
shi K., Sugiyama T., Otsuki T., Suzuki Y.,
Sugano S., Takahashi-Fujii A., Hara H.,
ogiya S., Komai F., Hara R., Takeuchi K.,
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l; Mismatches
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Pred. No.
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Q9NLP5;
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Best Local
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Q87093;
01-NOV-1996
01-NOV-1996
01-JUN-2000
                                                              Murphy L., Quail M., Harris Submitted (JUL-2000) to the EMBL; AL160493; CAB98015.1;
                                                                                                                             SEQUENCE FROM N.A. STRAIN-FRIEDLIN;
                                                                                                                                                                                   Leishmania major.
Eukaryota; Euglenozoa;
NCBI_TaxID=5664;
[1]
      SEQUENCE
                          Hypothetical protein NON_TER 88
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-NOV-1996 (TREMBLrel. 01, Created)
01-NOV-1996 (TREMBLrel. 01, Last sequence up
01-JUN-2000 (TREMBLrel. 14, Last annotation
GLYCOPROTEIN G (HOMOLOGUE OF HSV-2 US4).
Simian herpes B virus (Cercopithecid herpesv
Viruses; dsDNA viruses, no RNA stage; Herpes
Alphaherpesvirinae; Simplexvirus.
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bacteria.";
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Makamatsu A., Nakamura Y., Nagahari K., Masuho Y., Oshii
"NEDO human cDNA sequencing project.";
Submitted (FEB-2000) to the EMBL/GenBank/DDBJ databases
EMBL; AK001435; BAA91690.1;
SEQUENCE 547 AA; 62585 MW; 05AlCFC874F6C3BB CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
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NCBI_TaxID=10325;
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BL; Z46268; CAA86431.1; -.
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Pred. No. 67;
0; Mismatches
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Pred. No. 62;
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717B17CABD8C031A CRC64;
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Herpesviridae;
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Matches 6
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01-AUG-1998
                                                                                                             Equine infectious anemia virus Viruses; Retroid viruses; Retro Vir
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072774;
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"In vivo dynamics of equine infectious anemia viruses emerging febrile episodes: insertions/duplications at the principal neutralizing domain.";
J. virol. 71:5031-5039(1997).
EMBL; D87721; BAA28364.1; -.
INTERPRO; IPR001361; -.
Zheng Y., Nakaya T., Sentsu
Kono Y., Ikuta K.;
J. Gen. Virol. 0:0-0(1996).
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Kono Y., Ikuta K.;
J. Gen. Virol. 0:0-0(1996).
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                                                                                                                                                                          ENV.
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MEDLINE=97332334; PubMed=9188568;
MEDLINE=97332334; PubMed=9188568;
                                                           STRAIN-F2V;
                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                            ENVELOPE
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                                                                                                                                  neutralizing domain.";
J. Virol. 71:5031-5039(1997).
EMBL; D87725; BAA28367.1; -.
INTERPRO; IPRO01361; -.
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"In vivo dynamics of equine infectious
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US-08-466-583-2
PCT-US95-07820-2
US-08-445-586-7
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US-08-349-006-32
US-08-18-215-32
US-09-316-981-2
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                                                                                                                                                             REGISTRATION NUMBER: 26,031
REFERENCE/DOCKET NUMBER: BAMC:
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202)414-4000
INFORMATION FOR SEQ ID NO: 8:
SEQUENCE CHARACTERISTICS:
LENGTH: 400 amino acids
TYPE: amino acid
STRANDENAMES.
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Patent No. 5882653
GENERAL INFORMATI
                            ORGANISM: VIBRIO cho
STRAIN: El Tor 7946
IMMEDIATE SOURCE:
CLONE: zot
                                                                                                STRANDEDNESS:
TOPOLOGY: linear
MOLECULE TYPE: peptide
HYPOTHETICAL: NO
ANTI-SENSE: NO
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APPLICATION INDEER: U5/08/624,601
FILING DATE: 08-APR-1996
CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
NAME: Schneller Dr., John W.
REGISTRATION NUMBER: 26,031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Kaper Dr., James B.
APPLICANT: Levine Dr., Myron M.
TITLE OF INVENTION: Vibrio cholerae O1 (CVD111) and non-O1
TITLE OF INVENTION: (CVD112 and CVD112RM) serogroup vaccine strains, methods
TITLE OF INVENTION: of making same and products thereof
NUMBER OF SEQUENCES: 16
                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
OPERATING SYSTEM: PC-DOS/MS-DOS
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ZIP: 200
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1100 New York Ave
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"~+~hes 7; Conserv
                                                                                                                                                                                       TELEFAX: (415) 576-0300
NFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
                                                                                                                                                                                                                             NAME: Apple, Randolph 1.9
REGISTRATION NUMBER: 36,429
REFERENCE/DOCKET NUMBER: 015389-002930US
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/724,643
FILING DATE: 01-OCT-1996
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/851,843A FILING DATE: 06-MAY-1997 CLASSIFICATION:
                                                                                                                                                                          SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/846,017
FILING DATE: 25-APR-1997
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APPLICANT:
                                                                                                                                                                                                                                                                                     ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/844,419
FILING DATE: 18-APR-1997
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                                                                                                                              STRANDEDNESS
                                                                                                                                                           LENGTH:
                                                                                                                                                                                                                 TELEPHONE:
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COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CITY: San Francisco
STATE: California
                                                                                                                                                                                                                                                                                                                                                             CLASSIFICATION:
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                                                                                                                                          amino acid
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Two Embarcadero Center, 8th Floor
                                                                                                                                                        76 amino acids
                Conservative
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Andrews, William H.
Andrews, William H.
October 1880 Pel Telomerase
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Nakamura, Toru
Chapman, Karen B.
                                                                                                                  linear
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Harley, Calvin
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75.0%;
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87.5%;
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                         Score 35;
Pred. No.
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Pred. No.
            core 35; DB red. No. 10; Mismatches
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                                     Length 76;
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US-08-974-549A-324
        REGISTRATION NUMBER: 36,429
REFERENCE/DOCKET NUMBER: 015389-002610US
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 576-0200
                                                                                                                                                       FILING DATE: 01-OCT-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: WO PCT/US97/17618
                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION DATA:
PRIOR APPLICATION NUMBER: US 08/912,951
TITING DATE: 14-AUG-1997
                                                                                         ATTORNEY/AGENT INFORMATION:
NAME: Apple, Randolph Te
                                                                                                                                                                                                                                     APPLICATION NUMBER: 14-AUG-
FILING DATE: 14-AUG-
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: 1
FILING DATE: 14-AUG-
PRIOR APPLICATION DATA:
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PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/844,419
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APPLICATION NUMBER: US 08/724,643
FILING DATE: 01-0CT-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/844,419
FILING APPLICATION NUMBER: US 08/844,419
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TITLE OF INVENTION: Human Telomerase Catalytic Subunit
NUMBER OF SEQUENCES: 727
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                                                                                                                                       APPLICATION NUMBER: WO PIFILING DATE: 01-OCT-1997
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US 08/851,843 FILING DATE: 06-MAY-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US 08/846,017 FILING DATE: 25-APR-1997
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDIUM TYPE:
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CITY: San Francisco
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(415) 576-0300
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Chapman, Karen B.
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                                                                                                                                                                                                                                                         UMBER: US 08/915,503
14-AUG-1997
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14-AUG-1997
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19-NOV-1997
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Best Local Similarity
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; LOCATION: (109)
US-09-347-819-8
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Best Local S
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APPLICANT: Rafalski, J. Antoni
APPLICANT: Falco, S. Carl
TITLE OF INVENTION: Ornithine Biosynthesis Enzymes
FILE REFERENCE: BB-1174-C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EARLIER APPLICATION NUMBER: 60/093,209 EARLIER FILING DATE: July 17, 1998 NUMBER OF SEQ ID NOS: 14
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CURRENT FILING DATE: 1999-07-02
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TYPE: PRT
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                                                          STREET: STREET: STREET 
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APPLICANT: Quaranta, Vito
APPLICANT: Pytela, Robert
TITLE OF INVENTION: A No. 5962643el Integrin Beta Subunit and Uses
TITLE OF INVENTION: Thereof
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LENGTH: 76 amino acids
TYPE: amino acid
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TOPOLOGY: linear
MOLECULE TYPE: peptide
COMPUTER READABLE FORM:
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                                                                                                                                                                                                                                                                                             NUMBER OF SEQUENCES:
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nes 5; Conserv
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                                                                  United States of America
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75.0%;
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Pred. No. 25;
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Best Local Similarity
                                                                                                                                         APPLICATION NUMBER: US/07/728,215
FILING DATE: 19910711
CLASSIFICATION: 435
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Campbell, Cathryn A.
REGISTRATION NUMBER: 31,815
REFERENCE/DOCKET NUMBER: 931 8717
TELECOMMUNICATION INFORMATION:
TELEPHONE: (619) 535-9001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
                                                                                     TELEFAX: (619) 535-8949
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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TELECOMMUNICATION INFORMATION:
TELEPHONE: (619) 535-9001
TELEFAX: (619) 535-8949.
INFORMATION FOR SEQ ID NO: 39:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                tent No.
                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
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FILING DATE: 19910711
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                 STREET: 43, CONTRIBET: San Diego
CITY: San Diego
CTATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOETWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
MOLECULE TYPE: protein -728-215-41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Pytela, Robert TITLE OF INVENTION: A NO. TITLE OF INVENTION: Therec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Sheppard, Dean APPLICANT: Quaranta, Vito APPLICANT: Pytela, Robert
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LENGTH: 92 amino acids
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                                    TOPOLOGY:
                                                                       LENGTH:
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Pred. No.
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US-08-652-816A-12
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Patent No. 5872215
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Best Local Similarity
                                         INFORMATION FOR SEQ ID NO:
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                        SEQUENCE CHARACTERISTICS:
                                                                    TELECOMMUNICATION INFORMATION:
                                                                                                                             ATTORNEY/AGENT INFORMATION:
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APPLICATION NUMBER:
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APPLICATION NUMBER: GB 9125579.4
FILING DATE: 02-DEC-1991
PRIOR APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
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APPLICANT:
APPLICANT:
TYPE: a
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                                                                                REGISTRATION NUMBER: 36,107
REFERENCE/DOCKET_NUMBER: 28111/33308
                                                                                                                                                APPLICATION NUMBER: FILING DATE: 01-JU
                                                                                                                                                                                         APPLICATION NUMBER: FILING DATE: 02-DEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.0, Version
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                                                                                                                                                                                                                                                                                                                                                                  FILING DATE: 24-MA
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                                                                                                            David W. Clough
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                                   312-474-6300
Th NO: 12:
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                                                                                                                                              UMBER: US 08/244,597
01-JUN-1994
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07-DEC-1995
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02-DEC-1992
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23-MAY-1996
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23-SEP-1992
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24-MAR-1992
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66.78;
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Pred. No.
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South Wacker Drive
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RESULT
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US-08-466-583-2
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                                          Sequence 2, Application PC/TUS9507820 GENERAL INFORMATION:
                                                                                                                                                                                   Matches
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Ve
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/466,583
FILING DATE: 06-JUN-1995
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Best Local Similarity
Matches 6; Conserv
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                                                                                                                                                                                                                                                                                                      SEQUENCE CHARACTERISTICS:
LENGTH: 471 amino acids
                 APPLICANT:
                                APPLICANT
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TELECOMMUNICATION INFORMATION:
TELEPHONE: 303/499-8080
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APPLICATION NUMBER: US 0
FILING DATE: 24-JUN-1994
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APPLICANT:
                                                                                                                           144 GRLAVPPG 151
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NAME: Ferber, Donna M.
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                                                                                                                                                                                                Local
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                                                                                                                                                                                                                                                                                          TYPE: amino acid
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                                                                                                                                                      1 GRLCVQPG 8
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5. 5919998
                                                                                                                                                                                 Similarity 6; Conserv
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Szczyglowski, Krzysztof
                        Bandurski, Robert S.
              Szerszen, Jedrzej B.
                                                                                                                                                                                                                                                                                                                                                               303/499-8089
                                                                                                                                                                                Conservative
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ENTION: Genetic Control of Plant Hormone Levels
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75.08;
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75.0%;
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Jedrzej
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TELECOMMUNICATION INFORMATION:
TELEPHONE: 303/499-8080
                                                                                                                                                                                                TITLE OF INVENTION: Bone-Related Sulfatase-Like Protein and TITLE OF INVENTION: Process for its Production NUMBER OF SEQUENCES: 11 CORRESPONDENCE ADDRESS:
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IHM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                              COUNTRY: USA
ZIP: 20005-3314
                                                                                                                                            ADDRESSEE: Finnegan, Henderson, Farabow, Garrett & ADDRESSEE: Dunner STREET: 1300 I Street, N.W.
                                                                                                                              CITY: Washington
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REGISTRATION NUMBER:
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                                                                                                                                                                                                                                                                                                               Takeshita, Sunao
                                                                                                                                                                                                                                                                              Otawara-Hamamoto, Yoko
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      303/499-8089
                                                                                                                                                                                                                                                               Amann, Egon
                                                                                                                                                                                                                                                                                                  Ito, Toshimi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
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PatentIn Release #1.0, Version #1.25
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75.08;
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US-08-445-586-2
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Best Local
                                                                                                                          CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/445,586
FILING DATE:
CLASSIFICATION DATA:
PRIOR APPLICATION DATA:
APPLICATION US/08/445,586
FILING DATE: US/08/445,586
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/111,887
APPLICATION US/08/415,993
APPLICATION US/08/415,9
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                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 324034/92
FILING DATE: 03-DEC-1992
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APPLICATION NUMBER: US 08/111,887
FILING DATE: 26-AUG-1993
APPLICATION NUMBER: JP 230030/92
FILING DATE: 28-AUG-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION: Bone-Related Froduction TITLE OF INVENTION: Process for its Production or Schulences: 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE CHARACTERISTICS:
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                                                             APPLICATION NUMBER: JP 2: FILING DATE: 28-AUG-1992
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REGISTRATION NUMBER: 33, REFERENCE/DOCKET NUMBER:
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20005-3314
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        D.C
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ito, Toshimi
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75.08;
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                                                                                                    JP 230030/92
JP 324034/92
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3.5e+02;
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ATTORNEY/AGENT INFORMATION:

NAME: FORMAN, David S REGISTRATION NUMBER: FILING DATE: 03-DEC-1992

33,694

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SEQ ID NO 2
; LENGTH: 567
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-188-811-2
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Best Local Similarity
""" bs 5; Conserve
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Best Local Similarity
Watches 6; Conserve
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                                                                                                                                                                                      Patent No.
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                                                                                                                                                       GENERAL INFORMATION: APPLICANT: Bodary.
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EARLIER APPLICATION NUMBER: 09/163,116
EARLIER FILING DATE: 1998-09-29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Khodadoust, Mehran TITLE OF INVENTION: NOVEL MTBX PROTEIN AND NUCLEIC ACID MOLECULES AND TITLE OF INVENTION: THEREFOR FILE REFERENCE: MNI-046CP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION NUMBER: US/09/188,811
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NFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                         APPLICANT:
                                          CORRESPONDENCE ADDRESS
                                                          NUMBER OF SEQUENCES:
                                                                       APPLICANT: Napier, Mary A.

"ITLE OF INVENTION: METHOD FOR PREPARING WATER SOLUBLE INVENTION: POLYPEPTIDES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-408-4000
STREET:
CITY: S
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                                                                                                                                                                                                                                                                                  59 RLCAHPG 65
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                              ADDRESSEE:
                                                                                                                                                                                                                                                                                                                2 RLCVQPG 8
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: 460 Point San Bruno Blvd
South San Francisco
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                                                                                                                                   Gorman, Cornelia M.
                                                                                                                        McLean, John W.
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                           Genentech,
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75.08;
                        Inc.
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Pred. No. 3
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Pred. No.
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US-08-445-042-4
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                                                                                                                                                                                                                                                                                                  Sequence 4,
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                                                                                                                            NUMBER OF SEQUENCES: 1
CORRESPONDENCE ADDRESS:
     COMPUTER READABLE FORM: MEDIUM TYPE: 3.5 inch,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REGISTRATION NUMBER: 00,000
REFERENCE/DOCKET NUMBER: PO
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415/225-1994
                                                                                                                                                                                    APPLICANT: Napier, TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS:
LENGTH: 718 amino acid
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MEDIUM TYPE: 3.5 inch, 720 Kb fl
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WinPatin (Genentech)
CURRENT APPLICATION DATA:
                                                                                                                                                                 TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: 07/290224 FILING DATE: 22-DEC-1988 ATTORNEY/AGENT INFORMATION:
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PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/821337
FILING DATE: 13-JAN-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/380227
FILING DATE: 30-JAN-1995
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                      613 VCIQPG
                                                                  STREET: 460 Point San Bruno Blvd
CITY: South San Francisco
STATE: California
                                                    COUNTRY:
                                                                                                                  ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEFAX: 415/952-90
TELEX: 910/371-7168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US/01
FILING DATE: 19-May-1995
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                   3 LCVQPG 8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: 08/218878
                                   94080
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                                                                                                                                                                                                                   Gorman,
McLean,
                                                      USA
                                                                                                                                                                                                                                                                                                                                                                                    618
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                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                   Bodary,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Linear
                                                                                                                  Genentech,
                                                                                                                                                                                                 Mary A.
                                                                                                                                                                                                                                  Sarah C.
Cornelia M.
                                                                                                                                                                                                                    John W.
                                                                                                                                                                 METHOD FOR PREPARING WATER SOLUBLE POLYPEPTIDES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          07/444490
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720 Kb floppy disk
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 31;
Pred. No. 4
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 718;
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COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WinPatin (Genentech)
CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/445,042 FILING DATE: 19-May-1995

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US-07-728-215-32
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Patent No. 5962643
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 66.
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: 07/821337
FILING DATE: 13-JAN-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/444490
FILING DATE: 01-DEC-1999
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/290224
ETILING DATE: 22-DEC-1988
ATTORNEY/AGENT INFORMATION:
NAME: Lee, Wendy M.
TELEFAX: 415/952-9881
TELEX: 910/371-7168
INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                APPLICANT: Sheppard, Dean
APPLICANT: Quaranta, Vito
APPLICANT: Pytela, Robert
TITLE OF INVENTION: A No. 5962643el Integrin Beta Subunit and Uses
TITLE OF INVENTION: Thereof
NUMBER OF SEQUENCES: 43
CORRESPONDENCE ADDRESS:
ADDRESSEE: Pretty, Schroeder, Brueggemann & Clark
STREET: 4370 La Jolla Village Drive, Suite 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELECOMMUNICATION INFORMATION:
TELEPHONE: 415/225-1994
TELEFAX: 415/952-9881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/380227
FILING DATE: 30-JAN-1995
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: 08/218878 FILING DATE: 28-MAR-1994 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         613 VCIQPG 618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH: 718 amino acids
TYPE: Amino Acid
TOPOLOGY: Linear
                                                                                                                                                                                   STREET: 4370 La Jo
CITY: San Diego
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME: Lee, WEILLY ...
REGISTRATION NUMBER: 00,000
REGISTRATION NUMBER: P0552P1C3D1
                                                                                                                                                 COUNTRY: United States of America ZIP: 92122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3 LCVQPG 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              67.4%;
66.7%;
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Pred. No. 4.5e+02;
2; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 718;
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                                                                                                                                                US-07-728-215-32
                                                            Query Match
Best Local Similarity
Matches 4; Conserv
                                                                                                                                                                                                                                               TELEPHONE: (619) 535-90
TELEFAX: (619) 535-8949
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                             SEQUENCE CHARACTERISTICS:
LENGTH: 788 amino acids
TYPE: AMINO ACID
                                                                                                                                                                                                                                                                              REFERENCE/DOCKET NUMBER: P31 8717
TELECOMMUNICATION INFORMATION:
TELEPHONE: (619) 535-9001
                                                                                                                                                                                                                                                                                                                                                             CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
613 VCIQPG 618
                                                                                                                                                                STRANDEDNESS: single TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                              NAME: Campbell, Cathryn A. REGISTRATION NUMBER: 31,815
                              3 LCVQPG 8
                                                               Conservative
                                                               2; Mismatches
                                                                                Score 31; DB 2;
Pred. No. 4.9e+02;
                                                                                              Length 788
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Search completed: June 13, 2001, 14:16:32 Job time: 493 sec

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Result
No.
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Perfect score:
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB seq
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Searched:
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                                                                                                                                                                                                                                                                                                                               Pred. No. 1s the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                     Score
      3444
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1: /SIDS6/gcgdata,
2: /SIDS6/gcgdata,
3: /SIDS6/gcgdata,
4: /SIDS6/gcgdata,
5: /SIDS6/gcgdata,
6: /SIDS6/gcgdata,
7: /SIDS6/gcgdata,
8: /SIDS6/gcgdata,
9: /SIDS6/gcgdata,
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length: 2000000000
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    100.0
93.3
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Gapop 10.0 , Gapext 0.5
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0: /SIDS6/gcgdata/geneseq/geneseqp/AA198.DAT:*

1: /SIDS6/gcgdata/geneseq/geneseqp/AA198.DAT:*

2: /SIDS6/gcgdata/geneseq/geneseqp/AA199.DAT:*

2: /SIDS6/gcgdata/geneseq/geneseqp/AA199.DAT:*

3: /SIDS6/gcgdata/geneseq/geneseqp/AA199.DAT:*

4: /SIDS6/gcgdata/geneseq/geneseqp/AA199.DAT:*

5: /SIDS6/gcgdata/geneseq/geneseqp/AA199.DAT:*

6: /SIDS6/gcgdata/geneseq/geneseqp/AA199.DAT:*

7: /SIDS6/gcgdata/geneseq/geneseqp/AA199.DAT:*

8: /SIDS6/gcgdata/geneseq/geneseqp/AA199.DAT:*

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2: /SIDS6/gcgdata/geneseq/geneseqp/AA199.DAT:*
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45
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/SIDS6/gcgdata/geneseq/geneseqp/AA1982.DAT:*
/SIDS6/gcgdata/geneseq/geneseqp/AA1983.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /SIDS6/gcgdata/geneseq/geneseqp/AA1985.DAT:*
/SIDS6/gcgdata/geneseq/geneseqp/AA1986.DAT:*
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  Y79110
Y79106
Y79109
Y79122
Y79112
Y79114
R74094
R75206
Y42480
W81817
Y82215
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                                                                                            Peptide antagonist
Zonula occludens t
Peptide antagonist
Peptide antagonist
Peptide antagonist
Peptide antagonist
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R72501	Y79121	W09433	R91225	R91224	B25668	R91223	¥79108	Y36831	Y43091	Y43090	W63748	Y52977	Y52173	Y52682	Y82208	W81810	Y42473	R60532	R55200	Y52975	Y52171	Y52680	Y82206	80818W	Y42471	R55198	\sim	Y79118	Y79112	S	86	218	N)
Wheat cold toleran	Peptide antagonist				secreted	e pancreas	Peptide antagonist				semaphori	zona		oocyt		ZPA p	zona	zona	zona pel	zona	zona p	oocyt	zona	ZPA I	zona pel	zona	zona pellu	antagonis	antagonis	de antagonis	zona	pelluc	Human oocyte zona

ALIGNMENTS

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RESULT
Y79110
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                                                                               WPI; 2000-205565/18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Y79110 standard; Peptide; 8
                                                                                                                                                              Fasano A;
                                                                                                                                                                                                                                                                                                                                                                                                                         28-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             17-FEB-2000.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO200007609-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gastrointestinal inflammation; therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Peptide antagonist of zonulin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            05-JUN-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Y79110;
                                                                                                                                                                                                                                             (UYMA-) UNIV MARYLAND BALTIMORE
                                                                                                                                                                                                                                                                                                                                     03-AUG-1998;
                                                                                                                                                                                                                                                                                                                                     98US-0127815.
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New peptide antagonist of zonulin useful as antiinflammatory agent for

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            mucosal erosion or ulcerations, e.g. gastritis, gastric cancer, collagenous colitis, inflammatory bowel disease, diseases marked by lymphatic obstruction, e.g. congenital intestinal lymphangiectasia, sarcoidosis lymphoma, mesenteric tuberculosis, and after surgical correction of congenital heart disease with Fontan's operation, mucosal diseases without ulceration, e.g. Menetrier's disease, coeliac disease, eosinophilic gastroenteritis, and immune diseases, e.g. systemic lupus erythematosus or food allergies, primarily to
WPI; 1992-007465/01
N-PSDB; Q20185.
                                                         Kaper JB,
                                                                                                                                      05-JUN-1990;
                                                                                                                                                                         05-JUN-1991;
                                                                                                                                                                                                                                                         W09118979-A
                                                                                                                                                                                                                                                                                              Vibrio cholerae
                                                                                                                                                                                                                                                                                                                                ZOT; cholera; vaccine;
                                                                                                                                                                                                                                                                                                                                                                     Zonula occludens toxin
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                                                                                                                                                                                                                                                                                                                                                                                                                                                     R20006;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          R20006 standard;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          binding. They can be prepared by chemical synthesis or by use of recombinant DNA techniques. The peptide antagonists are used as an antiinflammatory agents in the treatment of gastrointestinal inflammation, where they bind to the 20T receptor in the intestine and yet does not physiologically modulate the opening of TJ in the intestine. Gastrointestinal inflammation conditions give rise to increased intestinal permeability and the peptide is useful for treating intestinal conditions that cause protein losing enteropathy caused by infection, e.g. Clostridium difficile infection,
                                                                                             (UYMA-) UNIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      enterocolitis, shigellosis, viral gastroenteritis, parasite
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      This present sequence is that of a peptide antagonist of zonulin (Z), one of 25 such peptides (see Y79105-29) of the invention, which bind to a zonula occludens toxin (ZOT) receptor, yet do not physiologically modulate the opening of mammalian tight junctions (TJ). The peptide antagonists are based on a common motif of ZOT and human zonulins, which is believed to be critical for receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       infestation, bacterial overgrowth, whipple's disease, diseases with
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 1; Page 42;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
nes 8; Conserv
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llarity 100.0%;
Conservative 0
                                                                                                MARYLAND BALTI.
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Pred. No. 3
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                                                       Fasano
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .2e+05;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 8;
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Best Local
 (TJ). The peptide antagonists are based on a common motif of ZOT and human zonulins, which is believed to be critical for receptor binding. They can be prepared by chemical synthesis or by use of recombinant DNA techniques. The pertian antagonist is designed by chemical synthesis or by use of recombinant DNA techniques.
                                                           This present sequence is that of a peptide antagonist of zonulin (2), one of 25 such peptides (see Y79105-29) of the invention, which bind to a zonula occludens toxin (20T) receptor, yet do not physiologically modulate the opening of mammalian tight junctions
                                                                                                                                                                       New peptide antagonist of zonulin useful as antiinflammatory agent for treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis -
                                                                                                                                              Claim
                                                                                                                                                                                                                                         WPI; 2000-205565/18
                                                                                                                                                                                                                                                                                                                                   03-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DIODO-Drain Darrier; antiinflammatory; cerebroprotective; neuroprotective; dermatological; antiulcer; antiviral; antibactorial.
                                                                                                                                                                                                                                                                                                                                                                                                17-FEB-2000
                                                                                                                                                                                                                                                                                                                                                                                                                             WO200007609-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gastrointestinal inflammation; therapy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      antibacterial;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Peptide antagonist of zonulin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             05-JUN-2000 (first entry)
                                                                                                                                                                                                                                                                                                    (UYMA-) UNIV MARYLAND BALTIMORE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         hypotensive; immunosuppressive;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Y79106 standard; Peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          efficacy in protecting humans against subsequent infection with a strain of a similar serotype and avoid undesirable side effects such as diarrhoea, nausea and cramping. Cultures of these strains may be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           cholerae (V.c.) to be used as vaccines. These V.c. efficacy in protecting humans against subsequent i
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The amino acid sequence is that of the zonula occludens toxin (ZOT) It may be responsible for diarrhoea in some strains of cholera and the ZOT gene or fragments of it are deleted from strains of Vibrio
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Zonulin;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New Vibrio cholerae strains - fragment encoding toxin, used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      291 grlcvqdg
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 GRLCVQDG 8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               for prodn. of vaccines against cholera
                                                                                                                                              1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
8; Conserv
                                                                                                                                           Page 41; 69pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     antagonist;
ain barrier;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   399 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Fig 18; 83pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      cytostatic; anti-HIV; vulnerary; antiallergic;
                                                                                                                                                                                                                                                                                                                                   98US-0127815.
                                                                                                                                                                                                                                                                                                                                                                 99WO-US16683
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 zonula occludens toxin receptor
                                                                                                                                         English.
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The
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 45;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      comprise restriction endonuclease as vaccines against cholera
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       antiparasitic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       vasotropic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 399;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      toxin (ZOT)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 antiinflammatory agents in the treatment of gastrointestinal inflammation, where they bind to the ZOT receptor in the intestine Cand yet does not physiologically modulate the opening of TJ in the CI intestine. Gastrointestinal inflammation conditions give rise to CI increased intestinal permeability and the peptide is useful for CI treating intestinal conditions that cause protein losing enteropathy CI caused by infection, e.g. Clostridium difficile infection, can conference this, shigellosis, viral gastroenteritis, parasite CI infestation, bacterial overgrowth, whipple's disease, diseases with CI mucosal erosion or ulcerations, e.g. spatritis, yastric cancer, CI infestation or ulcerations, e.g. spatritis, yastric cancer, CI imphatic obstruction, e.g. congenital intestinal lymphangic tasta, CI sarcoidosis lymphoma, mesenteric tuberculosis, and after surgical CI correction of congenital heart disease with Fontan's operation, CI mucosal diseases withhout ulceration, e.g. Menetrie's disease, coeliac disease, eosinophilic gastroenteritis, and immune diseases, coeliac disease, eosinophilic gastroenteritis, and immune diseases, coeliac disease, eosinophilic gastroenteritis, and immune diseases, coeliac disease withenatosus or food allergies, primarily to constitute the coeliac disease withenatosus or food allergies, primarily to constitute the coeliac disease withenatosus or food allergies, primarily to constitute the coeliac disease withenatosus or food allergies, primarily to coeliac disease withenatosus or food allergies.
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Best Local S
Matches 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Zonulin; antagonist; zonula occludens toxin receptor; blood brain barrier; antiinflammatory; cerebroprotective; neuroprotective; dermatological; antiulcer; antiviral; antibacterial; cytostatic; anti-HIV; vulnerary; antiallergic; hypotensive; immunosuppressive; antiparasitic; vasotropic;
This present sequence is that of a peptide antagonist of zonulin (2), one of 25 such peptides (see Y79105-29) of the invention, which bind to a zonula occludens toxin (20T) receptor, yet do no
                                                                                                                               New peptide antagonist of zonulin useful as antiinflammatory agent treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis
                                                                                                                                                                                                                          WPI; 2000-205565/18
                                                                                                                                                                                                                                                                                                                                                            03-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   17-FEB-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gastrointestinal inflammation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                               (UYMA-) UNIV
                                                                                                                                                                                                                                                                                                                                                                                                        28-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO200007609-A1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Y79109 standard; Peptide; 8 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pept1de
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity hes 7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    antagonist of zonulin.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                 MARYLAND BALTIMORE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ξ
                                                                                           42;
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                                                                                                                                                                                                                                                                                                                                                            98US-0127815.
                                                                                                                                                                                                                                                                                                                                                                                                     99WO-US16683
                                                                                        69pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        93.3%;
                                                                                        English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 42; I
Pred. No. 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                therapy.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 21;
3.2e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
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    do not
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RESULT
Y79122
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             c recombinant DNA techniques. The peptide antagonists are used as an attinflammatory agents in the treatment of gastrointestinal inflammation, where they bind to the ZOT receptor in the intestine and yet does not physiologically modulate the opening of TJ in the intestine. Gastrointestinal inflammation conditions yive rise to increased intestinal permeability and the peptide is useful for treating intestinal conditions that cause protein losing enteropathy caused by infection, e.g. Clostridium difficile infection, enterocolitis, shigeliosis, viral gastroenteritis, parasite enterocolitis, shigeliosis, viral gastroenteritis, parasite collagenous colitis, inflammatory bowel disease, diseases with mucosal erosion or ulcerations, e.g. gastritis, gastric cancer, collagenous colitis, inflammatory bowel disease, diseases marked by lymphatic obstruction, e.g. congenital intestinal lymphanglectasia, sarcoidosis lymphoma, mesenteric tubercoulosis, and after surgical correction of congenital heart disease with Fontan's operation, collage disease, without ulceration, e.g. Menetiler's disease, coeliac disease, without ulceration, e.g. mortania from the disease, coeliac disease, eosinophilic gastroenteritis, and immune disease, coeliac disease, eosinophilic gastroenteritis, and immune disease,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local
           New peptide antagonist of zonulin useful as antiinflammatory agent treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Zonulin; antagonist; blood-brain barrier; neuroprotective; derm
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    physiologically modulate the opening of mammalian tight junctions (TJ). The peptide antagonists are based on a common motif of ZOT and human zonulins, which is believed to be critical for receptor binding. They can be prepared by chemical synthesis or by use of
                                                                                                                                                                                                                                                                                                                                                         Synthetic
                                                                                                                                                                                                                                                                                                                                                                                              hypotensive; immunosuppressive; antiparasitic; gastrointestinal inflammation; therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                           WPI; 2000-205565/18
                                                                                                                                                                  (UYMA-) UNIV MARYLAND BALTIMORE
                                                                                                                                                                                                                                            28-JUL-1999;
                                                                                                                                                                                                                                                                                 17-FEB-2000
                                                                                                                                                                                                                                                                                                                      WO200007609-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                   antibacterial;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Peptide antagonist of zonulin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  05-JUN-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Y79122 standard; Peptide; 8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       systemic lupus erythematosus or food allergies, primarily to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity 7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
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                                                                                                                                                                                                                                                                                                                                                                                                                                   cytostatic;
                                                                                                                                                                                                         98US-0127815
                                                                                                                                                                                                                                            99WO-US16683
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ier; antiinflammatory; cerebroprotective;
dermatological; antiulcer; antiviral;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                84.4%;
87.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        zonula occludens toxin receptor;
                                                                                                                                                                                                                                                                                                                                                                                                                                anti-HIV; vulnerary; antiallergic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 38; DB 21;
Pred. No. 3.2e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
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Claim

1; Page

46;

69pp; English

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RESULT
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Best Local Similarity
Matches 7; Conserv
WPI; 2000-205565/18
                                                                                                                                                                                                                                      17-FEB-2000.
                                                                                                                                                                                                                                                                                                                                                                                                neuroprotective; dermatological; antiulcer; antiviral;
antibacterial; cytostatic; anti-HIV; vulnerary; antiallergic;
hypotensive; immunosuppressive; antiparasitic; vasotropic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   enterocolitis, shigellosis, viral gastroenteritis, parasite infestation, bacterial overgrowth, whipple's disease, diseases with mucosal erosion or ulcerations, e.g. gastritis, gastric cancer, collagenous colitis, inflammatory bowel disease, diseases marked by collagenous colitis, inflammatory bowel disease, diseases marked by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                inflammation, where they bind to the ZOT receptor in the intestine and yet does not physiologically modulate the opening of TJ in the intestine. Gastrointestinal inflammation conditions give rise to increased intestinal permeability and the peptide is useful for treating intestinal conditions that cause protein losing enteropathy caused by infection, e.g. Clostridium difficile infection,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             This present sequence is that of a peptide antagonist of zonulin (2), one of 25 such peptides (see Y79105-29) of the invention, which bind to a zonula occludens toxin (ZOT) receptor, yet do not physiologically modulate the opening of mammalian tight junctions (TJ). The peptide antagonists are based on a common motif of ZOT and human zonulins, which is believed to be critical for receptor
                                              Fasano A;
                                                                                                                                                                                                                                                                                                                                   Synthetic
                                                                                                                                                                                                                                                                                                                                                                               gastrointestinal inflammation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        05-JUN-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   correction of congenital heart disease with Fontan's operation, mucosal diseases without ulceration, e.g. Menetrier's disease, coellac disease, cosinophilic gastroenteritis, and immune diseases, e.g. systemic lupus erythematosus or food allergies, primarily to
                                                                                                                                           03-AUG-1998;
                                                                                                                                                                                                                                                                                    WO200007609-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          blood-brain barrier;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Peptide antagonist of zonulin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Y79114 standard; Peptide; 8 AA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           lymphatic obstruction, e.g. congenital intestinal lymphangiectasia, sarcoidosis lymphoma, mesenteric tuberculosis, and after surgical
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         recombinant DNA techniques. The peptide antagonists are used as an antiinflammatory agents in the treatment of gastrointestinal
                                                                                          (UYMA-) UNIV
                                                                                                                                                                                       28-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Zonulin; antagonist;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ۲
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       They can be prepared by chemical synthesis or by use of
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                          MARYLAND BALTIMORE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ΑĄ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                       99WO-US16683
                                                                                                                                           98US-0127815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      84.4%;
87.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       antiinflammatory;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        zonula occludens toxin receptor;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 38; DB 21;
Pred. No. 3.2e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cerebroprotective;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              allergies, primarily
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
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N-PSDB; Q92254.

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Query Match
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7; Conserve
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      lymphatic obstruction, e.g. congenital intestinal lymphangiectasia sarcoidosis lymphoma, mesenteric tuberculosis, and after surgical correction of congenital heart disease with Fontan's operation, mucosal disease without ulceration, e.g. Menetrier's disease, coeliac disease, eosinophilic gastroenteritis, and immune diseases, coeliac disease, eosinophilic gastroenteritis, and immune diseases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  recombinant DNA techniques. The peptide antagonists are used as an antiinflammatory agents in the treatment of gastrointestinal inflammation, where they bind to the ZOT receptor in the intestine and yet does not physiologically modulate the opening of TV in the intestine. Gastrointestinal inflammation conditions give rise to increased intestinal conditions that cause protein losing enteropathy caused by infection, e.g. Clostridium difficile infection, enterocolitis, shigellosis, viral gastroentriis, parasite infestation, bacterial overgrowth, whipple's disease, diseases with mucosal erosion or ulcerations, e.g. gastritis, gastric cancer, collagenous colitis, inflammatory bowel disease, diseases marked by the collagenous colitis, inflammatory bowel disease, diseases marked by the collagenous colitis, inflammatory bowel disease, diseases marked by the collagenous colitis, inflammatory bowel disease, diseases marked by the collagenous colitis, inflammatory bowel disease, diseases marked by the collagenous colitis, inflammatory bowel disease, diseases marked by the collagenous colitis, inflammatory bowel disease, diseases marked by the collagenous colitis, inflammatory bowel disease, diseases marked by the collagenous colitis, inflammatory bowel disease, diseases marked by the collagenous colitis, inflammatory bowel disease, diseases marked by the collagenous colitis, inflammatory bowel disease, disease collagenous colitis, inflammatory bowel disease, disease collagenous collagenous collegenous collagenous collegenous co
                         WPI; 1995-182067/24
                                                                                                                                                                                                                                                                                                                                                                                                         contraceptive;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human zona
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      R74094;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              This present sequence is that of a peptide antagonist of zonulin (2), one of 25 such peptides (see Y79105-29) of the invention, which bind to a zonula occludens toxin (ZOT) receptor, yet do not physiologically modulate the opening of mammalian tight junctions
                                                                                                                                    05-OCT-1993;
                                                                                                                                                                                          05-OCT-1993;
                                                                                                                                                                                                                                             18-APR-1995
                                                                                                                                                                                                                                                                                                   JP07099974-A
                                                                                                                                                                                                                                                                                                                                                                                                                                     Human zona
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                04-JAN-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         R74094 standard; Protein; 742 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New peptide antagonist of zonulin useful as antiinflammatory agent treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis
                                                                               (TOFU ) TONEN CORP.
                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          binding.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .g. systemic lupus erythematosus or food allergies,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        li iiiii
1 grgcvqdg 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 GRLCVQDG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The peptide antagonists are based on a common motif of ZOT human zonulins, which is believed to be critical for receptor ding. They can be prepared by chemical synthesis or by use of ombinant DNA techniques. The peptide antagonists are used as a linflammatory agents in the treatment of mastrointaction.
                                                                                                                                                                                                                                                                                                                                                                                                                               pellucida; HZP-2; protein; vaccine; antigen;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     pellucida-2 (HZP-2) protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
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                                                                                                                                    93JP-0249404
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                                                                                                                                                                                                                                                                                                                                                                                                           ovary.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 37; DB 21;
Pred. No. 3.2e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
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Query Match
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R55206
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                A commercially available human genomic DNA library consisting of 9-23kb inserts of DNA from placenta tissue of a male caucasian cloned into the Lambda fix (RTM)II vector was screened with probes encoding porcine ZPA and ZPB proteins. Positive clones were analysed further by Southern hybridisation using the porcine probes and restriction analysis. Clones encoding human ZPA and ZPB proteins were identified (see 065616 and 065617, respectively).
                                                                                                                                                                                                                                    09-NOV-1992;
29-JAN-1993;
                                                                                                                                                                                                                                                                                                                                                  Key
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The human zona pellucida-2 (HZP-2) protein may be used as a valuantigen. It can be artificially synthesised using recombinant techniques. Partial sequences of the HZP-2 gane were subclones sequences and primers used in cloning and subcloning are given
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 1; Page 8-11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             antigen
                                                                                                    Claim 40;
                                                                                                                                Use of zona pellucida proteins and antibodies - reproducible transient infertility or permanent
                                                                                                                                                                                                                                                                   06-NOV-1993;
                                                                                                                                                                                                                                                                                                                                          Protein
                                                                                                                                                                                                                                                                                                                                                                                            Human;
                                                                                                                                                                                                                                                                                                                                                                                                                Human zona
                                                                                                                                                                                                                                                                                                                                                                                                                                    01-FEB-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A DNA coding
                                                                                                                                                                        WPI; 1994-183156/22
                                                                                                                                                                                             Harris JD,
                                                                                                                                                                                                                                                                                                            W09411019-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                         R55206;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            R55206 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                       26-MAY-1994
                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                       emale
                                                                                                                                                                                                               (ZONA-) ZONAGEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               369 gelctqdg 376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 GRLCVQDG
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        is the deduced amino
                                                                                                                       mammals
                                                                                                                                                                                                                                                                                                                                                                                           zona
                                                                                                                                                               Q65616.
                                                                                                 Page
                                                                                                                                                                                                                                                                                                                                                                                                               pellucida ZPA protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          742
                                                                                                                                                                                             HSu KT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                            pellucida;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        numan
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                                                                                                 126-128; 154pp;
                                                                                                                                                                                                                                    92US-0973341
93US-0012990
                                                                                                                                                                                                                                                                   93WO-US10851
                                                                                                                                                                                                                                                                                                                               /label- human_ZPA
                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        zona
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                                                                                                                                                                                                                                                                                                                                                                                                                                   entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 80.0%;
75.0%;
                                                                                                                                                                                             Podolsk1
                                                                                                                                                                                                                                                                                                                                                                                            ZPA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        pellucida-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             745 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Japanese
        acid
                                                                                                                                                                                                                                                                                                                                                                                            immunocontraception
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 36; DB 16; Pred. No. 1.1e+02;
                                                                                                                                                                                             JS
                                                                                                 English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
        sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        protein
                                                                                                                              tibodies - for inducing permanent sterility in
        for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        used
        human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        vaccine
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       , the
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RESULT W81817

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local S
Matches 6
                                     Query Match
Best Local S
Matches 6
                                                                                                      This sequence represents the human zona pellucida ZPA protein. The invention relates to the isolation of novel nucleotide sequences encoding zona pellucida proteins from mammalian, especially porcine, lapine, canine, feline, bovine, human or cynomolgus monkey sources. The zona pellucida proteins (ZPA, ZPB, and ZPC) are used in the induction of transient or permanent infertility. At present the method is used in veterinary applications to induce transient or permanent infertility in porcine, lapine, canine, feline, bovine, and cynomolgus monkeys.
                                                                                                                                                                                                                                                                                                                        09-NOV-1993;
09-NOV-1992;
29-JAN-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                       Sequence
                                                                                                                                                                                                                                                     WPI; 1999-633318/54.
N-PSDB; Z22737.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Y42480;
                                                                                                                                                                                                                         Mammalian zona pellucida
infertility –
                                                                                                                                                                                                                                                                                                                                                                 07-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                        US5981228-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Contraceptive; porcine; pig; zona
dog; rabbit; feline; cat; bovine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human zona
                                                                                                                                                                                                    Example 11;
                                                                                                                                                                                                                       infertility
                                                                                                                                                                                                                                                                                  Podolski JS,
                                                                                                                                                                                                                                                                                                    (ZONA-) ZONAGEN INC.
                                                                                                                                                                                                                                                                                                                                                                                     09-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           15-FEB-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Y42480 standard; Protein; 745
369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    369
                   1 GRLCVQDG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 GRLCVQDG 8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gelctqdg
gelctqdg 376
                                                                                                                                                                                                                                                                                                                                                                                                                                                ZPC; infertility; veterinary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity 6; Conser
                                      Similarity 6; Conserv
                                                                                         745
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            745
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       pellucida
                                                                                                                                                                                                   Column 127-132;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                   8
                                                                                                                                                                                                                                                                                  HSu
                                                                                                                                                                                                                                                                                                                        93US-0149223.
92US-0973341.
93US-0012990.
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                                                80.
75.
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75
                                                                                                                                                                                                                                                                                  Harris
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                                                08;
                                                                                                                                                                                                                                 proteins
                                                                                                                                                                                                  84pp;
                                      Score 36; DB Pred. No. 1.1e 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 36; DB 15;
Pred. No. 1.1e+02;
D; Mismatches 2;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                        pellucida; mammal;
cow; human; cynomol
                                                                                                                                                                                                                                used
                                                                                                                                                                                                   English.
                                 DB 2;
1.1e+02;
2;
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                                                                                                                                                                                                                                 induce
                                                                                                                                                                                                                                                                                                                                                                                                                                                         cynomolgus
                                                        Length 745;
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                                                                                                                                                                                                                                 transient
                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   lapine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         ine; canine;
monkey; ZPA;
                                                                                                                                                                                                                                 or
                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                 permanent
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RESULT 11
Y82215
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09-NOV-1992;
29-JAN-1993;
07-JUN-1995;
22-FEB-2000
                   US6027727-A
                                     Homo sapiens
                                                         vaccine;
                                                                Zona pellucida; ZPA; ZPB; ZPC;
                                                                                     Human zona pellucida
                                                                                                                                            Y82215 standard; Protein; 745
                                                                                                                                                                                                                                                                                                This sequence represents a human ZPA protein isolated from zona pellucida. This protein can be used in a method for specifically inducing transient infertility or permanent sterility in a host animal by selective vaccination with specific zona pellucida proor immunocontraceptively active fragments.
                                                                                                         12-JUN-2000
                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                          Example 11; Column 133-138;
                                                                                                                                                                                                                                                                                                                                                                          Isolated zona pellucida DNA from different mammals - products which can be used for vaccination to induce infertility or permanent sterility in female mammals
                                                                                                                                                                                                                                                                                                                                                                                                                   N-PSDB; V64814.
                                                                                                                                                                                                                                                                                                                                                                                                                             WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                             Harris JD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 07-JUN-1995;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US5837497-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ZPA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           vaccine; human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human ZPA protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                (ZONA-) ZONAGEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           29-JAN-1999
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                                                                                                                                                                                             369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               W81817 standard;
                                                                                                                                                                                                              1 GRLCVQDG
                                                                                                                                                                                            gelctqdg 376
                                                                                                                                                                                                                                                                                                                                                                                                                           1999-023447/02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     zona pellucida;
                                                      lucida; ZPA; ZPB; ZPC; infertility;
immunocontraceptive; contraceptive;
                                                                                                                                                                                                                                                                                 745
                                                                                                                                                                                                                                  Conservative
                                                                                                      (first entry)
                                                                                                                                                                                                               œ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first
                                                                                                                                                                                                                                                                                 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 93US-0149223.
92US-0973341.
93US-0012990.
95US-0484993.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                95US-0484993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Protein;
                                                                                    ZPA SEQ ID NO:43.
                                                                                                                                                                                                                                           80.0%;
75.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 infertility; sterility; immunocontraceptive;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               745 AA
                                                                                                                                                                                                                                                                                                                                                        84pp;
                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                          Score 36;
Pred. No.
                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                         English.
                                                                                                                                                                                                                            DB 20; LC
1.1e+02;
2;
                                                               permanent
                                                    immunostimulatory.
                                                                                                                                                                                                                                                 Length 745;
                                                                                                                                                                                                                                                                                                           pellucida proteins
                                                                                                                                                                                                                                                                                                                                                                                             used to develop
                                                                                                                                                                                                                                                                                                                                                                                     transient
                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                              0;
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09-NOV-1993; 09-NOV-1992; 02-JUN-1995;

93US-0149223 92US-0973341 95US-0458731 target; immun
controllable;

immunocontraception;

a; ZPA; ZPB; ZPC; purified; mammalian; glycoprotein; contraception; vaccine; antibody; transient; infert predictable; permanent; sterility; side effect.

cona pellucida;

Human

oocyte

pellucida protein

ZPA.

US6001599-A. Homo sapiens

14-DEC-1999

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В
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Y52689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CC transient invention describes a method for inducing reproducible CC transient infertility in a female mammal, including humans, by selective CC administration of homologous and/or heterologous mammalian species (C can pellucida (ZP) proteins or immunocontraceptively active fragments. CC Also described are: (1) a method for inducing transient infertility in a CC mammal by administering directly an antibody directed to a ZPB or an CC cynomologically active fragment selected from feline, bovine, CC cynomologous monkey or human ZPB polypeptides; (2) an isolated, purified CC cynomologous monkey or human ZPB polypeptides; (2) an isolated, purified CC or immunologically active fragment; and (3) a fusion protein comprising CC a ZPB polypeptide which is conjugated with a compound selected from CC a ZPB polypeptide which is conjugated with a compound selected from CC a ZPB polypeptide which is conjugated with a compound selected from CC a ZPB polypeptide which is conjugated with a compound selected from CC a ZPB polypeptide which is conjugated with a compound selected from CC a ZPB polypeptide which is conjugated with a compound selected from CC a ZPB polypeptide which is conjugated with a compound selected from CC a ZPB polypeptide which is conjugated with a compound selected from CC a ZPB polypeptide with a compound selected from CC a ZPB polypeptide. The method is conjugated with a compound selected from CC a ZPB polypeptide. The method is conjugated with a compound selected from CC a ZPB polypeptide. The method is conjugated with a compound selected from CC a ZPB polypeptide. The method is conjugated with a compound selected from CC a ZPB polypeptide. The method is conjugated with a compound selected from CC a ZPB polypeptide. The method is conjugated with a compound selected from CC a ZPB polypeptide. The method is conjugated with a compound selected from CC a ZPB polypeptide. The method is conjugated with a conjugated with a compound selected from CC a ZPB polypeptide. The method is conjugated with a conjugated 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                         14-MAR-2000
                                                                                                                                                                                                                                                                                                                                                                                                    Y52689;
                                                                                                                                                                                                                                                                                                                                                                                                                                       Y52689 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Inducing reproducible transient or permanent infertility in a mammal comprises administration of homologous and/or heterologous mammalian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Example 11; Column 135-138; 85pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               09-NOV-1992;
29-JAN-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            09-NOV-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Podolski JS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (ZONA-) ZONAGEN INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 GRLCVQDG 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gelctqdg 376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000-269144/23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity 6; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Z95674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 zona pellucida proteins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 745
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HSu KT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               92US-0973341
93US-0012990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9308-0149223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               80.0%;
75.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Harris
                                                                                                                                                                                                                                                                                                                                                                                                                                         745
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 36;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                       AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ďD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; DB 21,
3. 1.1e+02;
2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 745;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
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Y52180
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Best Local
                                                                                                         09-NOV-1993;
09-NOV-1992;
29-JAN-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     occyte, formed of glycoproteins secreted by ovarian cells. The invention relates to zona pellucida proteins ZPA, ZPB and ZPC, which are useful as targets for immunocontraceptive vaccines. Polynucleotides encoding these proteins can be used for recombinant protein production, and as probes in hybridisation methods for the isolation of polynucleotides encoding zona pellucida proteins from other mammalian species. Administration of zona pellucida proteins to a host animal results in a specific immunocontraceptive effect. Administration of purified ZPA and/or ZPB induces transient infertility in females. Fertility can be maintained in an on or off condition in a controllable/ predictable fashion. Administration of ZPC induces permanent sterility. Use of a purified zona pellucida protein rather than a complex mixture of zona pellucida proteins reduces the potential for unwanted side-effects which may be harmful.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This sequence represents a mammalian zona pellucida protein, ZPA The zona pellucida is a complex matrix surrounding the mammalian
WPI; 2000-022762/02
                                  Podolski JS,
                                                                                                                                                                               07-JUN-1995;
                                                                                                                                                                                                                    23-NOV-1999
                                                                                                                                                                                                                                                        US5989550-A
                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                     Human zona pellucida protein B (ZPB) amino acid sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                          09-FEB-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Y52180 standard; Protein; 745 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Example 11; Columns 133-136; 84pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Isolated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2000-061880/05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (ZONA-) ZONAGEN INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    29-JAN-1993;
                                                                    (ZONA-) ZONAGEN INC.
                                                                                                                                                                                                                                                                                                                             fusion protein; vacc
immunocontraceptive.
                                                                                                                                                                                                                                                                                                                                                                 Zona pellucida protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               inducing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        369 gelctqdg 376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity
les 6; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 GRLCVQDG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               \ensuremath{\mathsf{DNA}} encoding mammalian zona pellucida proteins useful for transient sterility -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       745 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                93US-0012990
                                  Hsu KT,
                                                                                                       93US-0149223.
92US-0973341.
93US-0012990.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Hsu KT,
                                                                                                                                                                               95US-0480150
                                                                                                                                                                                                                                                                                                                                              protein; ZPA; ZPB; ZPC; oocyte; ovarian cell; antibody;
yaccine; contraceptive; fertilization; fertility;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    80
75
                                  Harris
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 36;
Pred. No.
                                  Ą.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1.1e+02;
ches 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 745;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
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RESULT
Y52984
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           biologically active fragments also porcine and cynomolgus monkey ZPA. The zona pellucida is a complex matrix surrounding the mammalian occyte, formed of glycoproteins secreted by ovarian cells. The previously mentioned ZPA proteins can be used to produce a fusion protein to stimulate production of antibodies in a mammal that recognize a ZPA polypeptide of the mammal. The ZPA polymentides are useful as vaccines for selectively effecting transient infertility in mammals. ZP has an important role in maintaining the occyte and in occyte-sperm interactions and so is a target for a contraceptive agent which interferes with the fertilization process. Providing a specific polypeptide reduces the need for a complex mixture of many ZP proteins which may create unwanted and harmful side effects. The duration of transient fertility is controllable
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Isolated and purified mammalian zona pellucida proteins useful in methods of immunocontraception - \,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          N-PSDB; Z37821
                                                                                                                                                                                                                                                                                                                                                                                 Human zona pellucida ZPA protein sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    and can be maintained
                                    New recombinant mammalian zona pellucida C female sterility
                                                                                          WPI; 2000-037080/03
                                                                                                                     Podolski JS,
                                                                                                                                                                                     09-NOV-1993;
09-NOV-1992;
                                                                                                                                                                                                                                07-JUN-1995;
                                                                                                                                                                                                                                                           02-NOV-1999
                                                                                                                                                                                                                                                                                    US5976545-A
                                                                                                                                                                                                                                                                                                                                                                                                            14-FEB-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                       Y52984;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Y52984 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           This is the human zona pellucida protein B (ZPB) amino acid sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Example 10;
                                                                                                                                              (ZONA-) ZONAGEN INC.
                                                                                                                                                                          29-JAN-1993;
                                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                                    Zona pellucida; ZPA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The invention relates to
                                                                                                                                                                                                                                                                                                                                         mmunocontraceptive;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                from mammals, specifically canine,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                369 gelctqdg 376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 GRLCVQDG 8
                                                                               Z33271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         745
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Column
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                     Hsu KT,
                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                         93US-0149223.
92US-0973341.
93US-0012990.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AA;
                                                                                                                                                                                                                              95US-0484158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Protein; 745
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       133-136;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   80.0%;
                                                                                                                                                                                                                                                                                                                                        ZPB; ZPC; infertility; sterility; vaccine;
contraception; immunisation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   in a controllable and/or predictable
                                                                                                                     Harris
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              isolated and purified zona pellucida proly canine, feline and bovine ZPA or their
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   84pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 36;
Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1.1e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 21;
                                                   proteins,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 745;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                   for
                                                   induction
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    fashion.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             proteins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                   of
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0;

Example 11; Column 133-136;

87pp; English

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RESULT 15
Y79105
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Best Local Similarity
""" 6; Conserv
                                                                                         This present sequence is that of a peptide antagonist of zonulin (Z), one of 25 such peptides (see Y79105-29) of the invention, which bind to a zonula occludens toxin (ZOT) receptor, yet do not physiologically modulate the opening of mammalian tight junctions (TJ). The peptide antagonists are based on a common motif of ZOT and human zonulins, which is believed to be critical for receptor binding. They can be prepared by chemical synthesis or by use of
                                                                                                                                                                                                                                                                                                                                                                                                                                              New peptide antagonist of zonulin useful as antiinflammatory agent treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis
recombinant DNA techniques. The peptide antigonists are used as an antiinflammattory agents in the treatment of gastrointestinal inflammation, where they bind to the ZOT receptor in the intestine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The present invention describes recombinant zona pellucida (ZP) proteins, specifically ZPC proteins. Also described are fusion proteins of ZPC with any of keyhole limpet haemocyanin, muramyl dipeptide, histidine tag, beta-galactosidase or palmitic acid, capable of stimulating mammalian antibodies that recognise mammalian ZPC. Recombinant ZPC proteins are used to immunise animals to induce transient infertility or permanent female sterility, in humans or other mammals. Z3343 to Z33254, Z33270 to Z33274 and Z33285 encode mammalian ZP proteins given in Y52971 to Z33274 and Z33285 encode mammalian ZP proteins given in Y52978 from the present invention. Z33255 to Z33264 and Z33275 to Z33284
                                                                                                                                                                                                                                                                                                                                                                              Claim 1; Page 41; 69pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     hypotensive; immunosuppressive; antiparasitic; vasotropic; gastrointestinal inflammation; therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Zonulin; antagonist; zonula occludens toxin receptor; blood-brain barrier; antiinflammatory; cerebroprotective; neuroprotective; dermatological; antiulcer; antiviral; antibacterial; cytostatic; anti-HIV; vulnerary; antiallergic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2000-205565/18.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (UYMA-) UNIV MARYLAND BALTIMORE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 28-JUL-1999;
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Pred. No. 1.1e+02;
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Matches 6; Conser
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milk.
                                                                                                                                                                                                                                            mucosal erosion or ulcerations, e.g. gastritis, gastric cancer, collagenous colitis, inflammatory bowel disease, diseases marked by lymphatic obstruction, e.g. congenital intestinal lymphangiectasia, sarcoidosis lymphoma, mesenteric tuberculosis, and after surgical correction of congenital heart disease with Fontan's operation, mucosal diseases without ulceration, e.g. Menetrier's disease, coeliac disease, eosinophilic gastroenteritis, and immune diseases,
                                                                                                                                                                                                                                                                                                                                                                                                               and yet does not physiologically modulate the opening of TJ in the intestine. Gastrointestinal inflammation conditions give rise to increased intestinal permeability and the peptide is useful for treating intestinal conditions that cause protein losing enteropathy caused by infection, e.g. Clostridium difficile infection,
                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                     enterocolitis, shigellosis, viral gastroenteritis, parasite
                                                                                                                                                                                                                                                                                                                                                                                 infestation, bacterial overgrowth, whipple's disease,
1 grvcvqpg 8
                                      1 GRLCVQDG 8
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                                                                            Conservative
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                                                                                                                                                                                                                                lupus
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                                                                                          77.8%;
75.0%;
                                                                                          Score 35;
Pred. No.
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Search completed: June Job time: 374 sec 13, 2001, 14:14:33

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REST PAYON BIRDLE (DOMY)

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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
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Perfect score:
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Maximum DB
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 Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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length: 20
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PIR_67:*
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Gapop 10.0 , Gapext 0.5
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probable lipoprote
glycerol kinase (E
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crumbs protein - f
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sperm-binding glyc
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DNA polymerase - h
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                                                                                                                                                                                                                                                                                                                                                                                                                                C;Species: Vibrio cholerae
C;Date: 18-Aug-2000 #sequence_revision 20-Aug-2000 #text_change 15-Sep-2000
C;Accession: B82197
R;Heidelberg, J.F.; Eisen, J.A.; Nelson, W.C.; Clayton, R.A.; Gwinn, M.L.; Dodson, R. chardson, D.; Ermolaeva, M.D.; Vamathevan, J.; Bass, S.; Qin, H.; Dragoi, I.; Sellers 1, R.R.; Mekalanos, J.J.; Venter, J.C.; Fraser, C.M.
Nature 406, 477-483, 2000
A;Title: DNA Sequence of both chromosomes of the cholera pathogen Vibrio cholerae. A;Reference number: A82035; MUID:20406833
A;Accession: B82197
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-399 <HEID
A;Cross-references: GB:AE004224; GB:AE003852; NID:99655952; PIDN:AAF94615.1; GSPDB:GN
A;Experimental source: serogroup 01; strain N16961; blotype El Tor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            в82197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             zona occludens toxin VC1458 [imported] - Vibrio cholerae (group O1 strain N16961)
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ALIGNMENTS

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C; Genetics:
A; Gene: VC1458
A; Map position:
                                                                                                                                                C;Accession: A43864
R;Baudry, B.; Fasano, A.; Ketley, J.; Kaper, J.B.
Infect. Immun. 60, 428-434, 1992
A;Title: Cloning of a gene (zot) encoding a new toxin
A;Reference number: A43864; MUID:92112300
A;Accession: A43864
                                                                                                                                                                                                                                                                                                          RESULT
A43864
                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
---hes 8; Conserva
                                                                A;Molecule type: DNA
A;Residues: 1-399 <BAU>
A;Coss-references: GB:M83563; NID:g155314; PIDN:AAA27582.1; PID:g155315
A;Cote: sequence extracted from NCBI backbone (NCBIN:77488, NCBIP:77491)
                                                                                                                                                                                                                                                     C;Species: Vibrio cholerae
C;Date: 10-Mar-1993 #sequence_revision 18-Nov-1994 #text_change 08-Oct-1999
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                                                                                                                                    A;Status: preliminary
                                                                                                                                                                                                                                                                                        zonula occludens toxin - Vibrio cholerae
 Query Match
Best Local Similarity
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Score 45;
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Query Match
Best Local Similarity
""thes 6; Conserv:
                                                                                                                                                                                                                       A;Cross-references: GDB:6278878; OMIM:182888
C;Superfamily: sperm-binding glycoprotein ZP2; Z
C;Keywords: glycoprotein; oocyte; transmembrane
F;371-631/Domain: ZP domain homology <ZPH>
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                                                                                                                                                                                                                                                                                                                                                 A; Molecule type: mRNA
A; Residues: 1-745 < LIA>
A; Residues: GB: M90366; NID: g292939; PIDN: AAA61335.1; PID: g292940
A; Experimental source: ovary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   sperm-binding glycoprotein ZP2 precursor - human
N;Alternate names: 75K zona pellucida glycoprotein;
C;Species: Homo sapiens (man)
C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #
C;Accession: A48833
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C;Accession: A45984
R;Lee, V.H.; Schwoebel, E.; Prasad, S.; Cheung, P.; Timmons, T.M.; Cook, K.; Dunuar, D., Biol. Chem. 268, 12412-12417, 1993
J. Biol. Chem. 268, 12412-12417, 1993
A.Title: Identification and Structural characterization of the 75-kDa rabbit zona pelluc
RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                     R;Llang, L.F.; Dean, J.
Dev. Biol. 156, 399-408, 1993
A;Title: Conservation of mammalian secondary sperm receptor A;Reference number: A48833; MUID:93215931
A;Accession: A48833
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C;Superfamily: sperm-binding glycoprotein ZP2; ZP domain homology C;Keywords: glycoprotein; occyte; transmembrane protein F;329-589/Domain: ZP domain homology <ZPH>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-676 <LEE>
                                                                                                                                                                                                                                                                                                       A; Gene: GDB: ZP2
                                                                                                                                                                                                                                                                                                                             C;Genetics
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N;Alternate names: 75K zona pellucida glycoprotein; zona pellucida protein 2; zona
C;Species: Oryctolagus cuniculus (domestic rabbit)
C;Date: 03-May-1994 *sequence_revision 05-Jan-1996 *text_change 05-Jan-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Status: preliminary
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                                                                                                                                               Score 36; DB
Pred. No. 29;
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                                                                               R;Wall, M.

Submitted to the EMBL Data Library, Sep
A;Reference number: Z20257
A;Accession: T26723
A;Status: preliminary; translated from
A;Molecule type: DNA
A;Residues: 1-296 <WIL>
                           C; Genetics:
       A; Gene: CESP: Y39A1A.11
                                         A;Cross-references: EMBL:AL031633; PIDN:CAA21012.1; A;Experimental source: clone Y39A1A
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                                                                                                                                                                                                                                                                                               T26723
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hypothetical protein Y39AlA.11 - Caenorhabditis elegans c;Species: Caenorhabditis elegans c;Species: Caenorhabditis elegans C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 31-Jan-2000 C;Accession: T26723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            R; Wang, D.Z.; Lin, J.J.C.
submitted to the EMBL Data Library, March 19
A; Description: Involvement of a novel gene,
A; Reference number: 217948
A; Accession: T14267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Xin protein, stage early embryo - mouse
C:Species: Mus musculus (house mouse)
C:Date: 20-Sep-1999 #sequence_revision 20-Sep-1999 #text_change 20-Sep-1999
C:Accession: T14267
                                                                                                                                                                                                                                                                                                                                                               A;Molecule type: mRNA
A;Residues: 1-1677 <WAN>
A;Cross-references: EMBL:AF051945; NID:g2970645; PID:g2970646; PIDN:AAC06023.1
A;Experimental source: cardiac muscle; stage early embryo
                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Status: preliminary; translated from GB/EMBL/DDBJ
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Best Local Similarity
Grands 6; Conserv
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A; Introns: 33/1;
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A; Residues: 1-417 <BEV>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Gene: ATSP: F24J7.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Cross-references: EMBL:AL021768; GSPDB:GN00062; ATSP:F24J7.30
A;Experimental source: cultivar Columbia; BAC clone F24J7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Reference number: Z15403
A; Accession: T05207
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Best Local Similarity /ɔ.v
""" 6; Conservative
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85.7%;
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Pred. No.
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     March 1998
el gene, Xin,
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97;
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27;
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September 1998

GB/EMBL/DDBJ

GSPDB:GN00021; CESP:Y39A1A.11

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C; Access
R; Ryan,
                                                                                                                                                                                                                                                                                                                                                        ATP-stimulated glucocorticoid-receptor translocation promoter protein - C;Species: Rattus norvegicus (Norway rat)
C;Date: 24-Feb-1994 #sequence_revision 24-Feb-1994 #text_change 21-Jul-2 C;Accession: JN0606
                                                                                                                                                    C:Comment: This protein is a histone binding
C:Superfamily: xylulokinase
C:Keywords: ATP
                                                                                                                                                                                                   R;Okamoto, K.; Hirano, H.; Isohashi, F.
Blophys. Res. Commun. 193, 848-854, 1993
A;Title: Molecular cloning of rat liver glucocorticoid-receptor translocal federation of the commun. 193312338
A;Accession: JN0606
A;Accession: JN0606
A;MOID:93312338
A;Accession: JN0606
A;MOID:93312338
A;Molecule type: mRNA
A;Molecule type: mRNA
A;Molecule type: mRNA
A;Cross-references: GB:D16102; NID:g414352; PIDN:BAA03677.1; PID:g433211
A;Experimental source: liver
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A; Introns: 194/1
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A;Molecule type: DNA
A:Residues: 1-475 <RYA>
A:Cross-references: EMBL:AF069299; NID
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A; Accession: T01352
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Best Local Similarity
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C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Date: 12-Feb-1999 #sequence_revision 12-Feb-1999 #text_change 14-May-1999
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Best Local S
Matches 5
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;Ryan, E.; Edwards, J.; Pape, K.
                                                               Query Match
Best Local Similarity
Matches 5; Conserv
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266
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GQMCFQDG 273
                                GRLCVQDG 8
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                                                                   Conservative
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62.5%;
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Pred.
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Pred.
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                                                                                 52;
                                                                                                                                                                                     protein which increases the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2;
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hypothetical protein TP0022 - syphilis spirochete
C;Specles: Treponema pallidum subsp. pallidum (syphilis spirochete)
C;Specles: Treponema pallidum subsp. pallidum (syphilis spirochete)
C;Date: 24-Jul-1998 #sequence_revision 2-jul-1998 #text_change 24-Nov-1999
C;Accession: B71376
R;Fraser, C.M.; Norris, S.J.; Weinstock, G.M.; White, O.; Sutton, G.G.; Dods rson, J.; Khalak, H.; Richardson, D.; Howell, J.K.; Chidambaram, M.; Utterba they, L.; Weidman, J.; Smith, H.O.; Venter, J.C.
Science 281, 375-388, 1998
A;Reference number: A71250; MUID:98332770
A;Reference number: A71250; MUID:98332770
A;Accession: B71376
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A;Title: Cloning and characterization of zona pellucida genes A;Reference number: S70396; MUID:95143578
A;Accession: S70397
                                                                                                                                                                                                                                                                                    RESULT
B71376
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              R; Harris, J.D.; Hibler, D.W.; Fontenot, G.K.; DNA Seq. 4, 361-393, 1994
A; Title: Cloning and characterization of zona A; Reference number: S70396; MUID:95143578
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                zona pellucida glycoprotein A - cat
C;Species: Felis silvestris catus (domestic cat)
C;Date: 28-Oct-1996 #sequence_revision 27-Feb-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Cross-references: EMBL:U05779; NID:g458274; PIDN:AAA74386.1; PID:g458275
C;Superfamily: sperm-binding glycoprotein ZP2; ZP domain homology
F;368-628/Domain: ZP domain homology <ZPH>
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C;Species: Canis lupus familiaris (dog
C;Date: 28-oct-1996 #sequence_revision
C;Accession: S70397
  A; Molecule type: DNA
A; Residues: 1-722 <C
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A; Residues: 1-716 <HAR>
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A; Residues: 1-715 <HAR>
                                    A; Status: preliminary; nucleic
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Matches 6
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Pred. No.
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Pred. No.
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                                        sequence
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69;
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                                                                                                 the syphilis spirochete
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GB:AE001187; GB:AE000520; NID:g3322273;

PIDN:AAC65022.1; PID:g332

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A;Molecule type: DNA
A;Residues: 1-196 <ARN>
A;Cross-references: GB:AE001308; GB:AE001273; NID:g3328766; PIDN:AAC67944.1; PID:g332877
A;Experimental source: serotype D, strain UW-3/Cx
                                                                                                                                                               A;Title: Genome sequence of an obligate intracellular pathogen of humans: Chlamydia traca;Reference number: A71570; MUID:99000809
A;Accession: F71525
                                                                                                                                                                                                                                 R;Stephens, R.S.; Kalman, Science 282, 754-759, 1998
                                                                                                                                                                                                                                                                         hypothetical protein CT349 - Chlamydia trachomatis (serotype D, strain UW3/Cx) C;Species: Chlamydia trachomatis C;Date: 13-Sep-1998 #sequence_revision 13-Sep-1998 #text_change 08-Oct-1999 C;Accession: F71525
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                                                                                                                                                 A;Status: preliminary
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Cross-references: EMBL:247812; PIDN:CAA87796.1; GSPDB:GN00020; CESP:T05H10.7 A;Experimental source: clone T05H10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 submitted to the EMBL Data Library, January 1995
A;Reference number: Z19907
A;Accession: T24560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C;Species: Caenorhabditis elegans
C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 29-Oct-1999
C;Accession: T23238; T24560
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C:Genetics:
A;Gene: TP0022
C;Superfamily: syphilis spirochete hypothetical protein TP0022
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      submitted to the EMBL Data Library, A; Reference number: Z19713
A; Accession: T23238
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;Superfamily: septum formation protein maf
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Search completed: June Job time: 141 sec

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C;Superfamily: septum formation protein maf
   В
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A;Experimental source: strain Nigg (MoPn)
                                                                                                                                                                                                                                                                                           R;Read, T.D.; Brunham, R.C.; Shen, C.; Gill, S.R.; Heldelberg, J.F.; White, O.; Hicke, C.; Dodson, R.; Gwinn, M.; Nelson, W.; DeBoy, R.; Kolonay, J.; McClarty, G.; Salzbe Nucleic Acids Res. 28, 1397-1406, 2000
A;Title: Genome sequences of Chlamydia trachomatis MoPn and Chlamydia pneumoniae AR39 A;Reference number: A81500; MUID:20150255
                                                                                                                                                                                                                                                                                                                                                                                                         maf protein TC0628 [imported] - Chlamydia muridarum (strain Nigg) C;Species: Chlamydia muridarum, Chlamydia trachomatis MoPn C;Date: 31-Mar-2000 #sequence_revision 31-Mar-2000 #text_change 1
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A; Residues: 1-196 <TET>
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6 saccharomyc
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3 caenorhabdi
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3 drosophila
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l escherichia
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l rattus norv
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canis famil
felis silve
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flavobacter
escherichia
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herpesvirus
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  Fasano A., Baudry B., Pumplin D.W., Wasserman S.S.,
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R RP	R R F	RR	RA	R R	RA:	R R A	R ?	8 R R	R R I	R 20	RP	RT RL	R A	RR	P	곱	₽ R 7	RR	RRI	RA	R 80	RP	2 g	os s	D C	3 5 5	a a u	ZO ZO							
CHARA	Nature 406:	"DNA																												444	41	40	38	3 3 3 1 6 5	34
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CHARACTERIZATION. MEDLINE-91271365;	477-483	e of	L., Smi	. Utter	Nelson	J.F., Е	06833;	OM N.A.	JAN-200	OR 8601	OM N.A.	JAN-199	Wei-J	FROM N.A.	ig Hoiji	d nucle	STRAIN-KNIH002; Shin H.J. Park Y.C.		90.	Fasano a gene	SICAL 1	ÕM N.A.	roteoba 666;	erae.	ENS TOX	(Rel.	ZOT_VIBCH STANDARD; P38442; Q9L7Q6; Q9R3V6;			66.7 66.7	ט ע	99	.0.0		8
PubMed-	(2000).	both chr	Smith H.O.	matheva back T.	X.E., 2	., Eisen J.A., Nelson W.(PubMed=) S1 / SE	Ö	<u>.</u> 2		öĕ	:		. 35:205	otide s	C. Kin		428-434	A., Ketley J., Ke (zot) encoding	NABA 56		cteria;		IN (ZON	40, Cre	NDARD;			446 471 508			342		
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603;			lwell	, Bas eishm	F.D.,	Nelso	2301;	일	MBL/G	EROTYPE O1;		of zot Gene the EMBL/Ger	g-Fu		:205-210(1999).	nce a			2	J., K	472:		na subd		OCCL	quenc quenc	PRT;		ALI	RB3_S	MP1_R	YP1 M	SP_S	KD2_H POL_R	3L2_S
		of the cholera pa	R.R., Mekalanos	ann R.D., Nierman	Tettelin H., Ric	on W.C., Clayton R.A., Gwinn M.I	•		GenBank/DDBJ databas			from VibrionBank/DDBJ			isolated in	ysis of the				Kaper J.B.; a new toxin produced			ivision;		JUDENS TOXIN).	Last sequence update)	399 AA.	٠	ALIGNMENTS	CRB3_SCHPO GLTD_ECOLI TRPE_SYNY3	ZAT	OUSE	CHJA	PKD2_HUMAN DPOL_RHCM6	ACFI
		pathogen Vibrio	J.J., Vent	goi I., Se	hardson D.	≀.A., Gwinn			ases.			o cholerae."; databases.			Korea.";	ce ge			3	ced by Vibr			Vibrionaceae; Vi							Q10272 P09832 P20170	- ~	$\omega \circ$. ~ 5	\sim	~
		rio	er J.C.,	te O.,		M.L.										ne			;	rio .			Vibrio.							schizosacch escherichia synechocyst	rattus norv	mycobacteri	human cytom schistosoma	homo sapien rhesus cyto	saccharomyc

Tall B.D.,

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Matches 8
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DNA POLYMERASE (EC
                               This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation
                                                                                                                                              J. Gen. VIIO1. 77:1559-1562(1996).

-I- CATALYTIC ACTIVITY: N DEOXYNUCLEOSIDE TRIPHOSPHATE
N PYROPHOSPHATE + DNA(N).
-I- SUBCELLULAR LOCATION: NUCLEAR.
                                                                                                                                                                                                                                                                          MEDLINE=96335691; pubMed=8757999;
Beuken E., Slobbe R., Bruggeman C.A., Vink C.;
Beuken E. and sequence analysis of the genes encoding DNA
glycoprotein B, ICP18.5 and major DNA-binding protein of
cytomegalovirus.";
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15-DEC-1998
15-DEC-1998
between the Swiss Institute or BIOLING.
                                                                                                                  -!- SIMILARITY: BELONGS TO DNA POLYMERASE TYPE-B FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Rat cytomegalovirus (strain maastricht)
Viruses; dsDNA viruses, no RNA stage; H
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Q85428;
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EMBL; AF175708; AAD51358.1; --
EMBL; AF123049; AAD26854.1; --
EMBL; AF220606; AAF29547.1; --
EMBL; AF220606; AAF2964615.1; --
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE
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Intestinal tight junctions.";
Proc. Natl. Acad. Sci. U.S.A. 88:5242-5246(1991).
THE STATE OF THE PERMEABILITY OF THE STATE OF THE STATE
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37, Last sequence update)
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C 2.7.7.7).
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                                                              a collaboration
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RESULT 3
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Best Local
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2P2_RABIT STANDAKL;

p48829;

01-FEB-1996 (Rel. 33, Created)

01-FEB-1996 (Rel. 33, Last sequence update)

30-MAY-2000 (Rel. 39, Last annotation update)

ZONA PELLUCIDA SPERN-BINDING PROTEIN 2 (ZONA )

TONA PELLUCIDA PROTEIN A) (75 KDA ZONA
                                                                              This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the Exthe European Bioinformatics Institute. There are no restruse by non-profit institutions as long as its content modified and this statement is not removed. Usage by and entitles requires a license agreement (See http://www.isb-sor send an email to license@isb-sib.ch).
    Glycoprotein;
                  PROSITE;
                                Pfam; PF00100;
                                                          EMBL; L12167; AAA31502.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                              STRAIM-NEW ZEALAND WHITE; TISSUE-Ovary;
MEDLINE-93286072; PubMed-7685342;
Lee V.H., Schwoebel E.D., Prasad S.V., Cheung
Cook R.G., Dunbar B.S.;
                                                                                                                                                                                                                                                                                    -
                                               InterPro;
                                                                                                                                                                                                       -!- SIMILARITY: CONTAINS 1 ZP DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Oryctolagus cuniculus (Rabbit).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                             -!- SUBCELLULAR LOCATION:
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                                                                                                                                                                                                                                                                                                                                                                                              "Identification and structural characterization
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             modified
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SEQUENCE 1120 AA; 124853 MW; 12FFAAE95EF54FC4 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRINTS; PRO0106; DNAPOLB.
PROSITE; PS00116; DNA_POLYMERASE_B; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     InterPro; IPR002064; -.
Pfam; PF00136; DNA_pol_B; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                         a pellucida protein.";
a pellucida protein.";
Biol. Chem. 268:12412-12417(1993).
Biol. Chem. 268:12412-12417(1993).
FUNCTION: EP2 FORMS WITH EP1 AND EP3 THE ZONA PELLUCIDA, I. WHICH EP2 AND EP3 COMPLEX INTO COPOLYMERS CROSS-LINKED BY EP2 ACTS AS A SECONDARY SPERM RECEPTOR (BY SIMILARITY).
CHECKET AND ACTION: TYPE I MEMBRANE PROTEIN. EXTRACELLUI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 GRLCVQDG
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PTM: PROTEOLYTICALLY CLEAVED AFTER FERTILIZATION, AND THIS MODIFICATION, ALONG WITH PRESUMED CHANGES IN ZP3 MAY PLAY FIMPORTANT ROLE IN THE POSTFERTILIZATION BLOCK TO POLYSPERMI
                                                                                                                                                                                                                     (BY SIMILARITY)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
                  PS00682;
                                                                                                                                                                                                                                SULFATED GLYCOPROTEIN WITH O-LINKED OLIGOSACCHARIDES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          non-profit institutions as long and this statement is not removed
                                            IPR001507;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
   Sulfatation;
            zona_pellucida;
82; ZP_DOMAIN; 1
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75.0%;
   Sperm;
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Receptor;
                                                                                               http://www.isb-sib.ch/announce/
Transmembrane;
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POLYSPERMY
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MBL outstation -
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RESULT 4
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                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.

MEDLINB-99425270; PubMed-10493829;

MEDLINB-99425270; PubMed-10493829;

Loftus B.J., Kim U.-J., Sneddon V.P., Kalush F., Brandon Fuhrmann J., Mason T., Crosby M.L., Barnstead M., Cronin Deslattes Mays A., Cao Y., Xu R.X., Kang H.-L., Mitchell Eichler E.E., Harris P.C., Venter J.C., Kadans M.D.;

Eichler E.E., Harris P.C., Venter J.C., Adans M.D.;

"Genome duplications and other features in 12 Mb of DNA s human chromosome is and 16q.";

Genomics 60:295-308(1999).
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Mammalia; E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-FEB-1994 (Rel. 28, Created)
01-FEB-1994 (Rel. 28, Last sequence update)
01-CCT-2000 (Rel. 40, Last annotation update)
20NA PELLUCIDA SPERM-BINDING PROTEIN 2 PRECURSOR (ZONA PELLUCIDA GLYCOPROTEIN ZP2) (ZONA PELLUCIDA PROTEIN A).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                      promoter of the human gene to Dev. Biol. 156:399-408(1993).
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01-FEB-1994
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID=9606;
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                                                                                                                                                                                                    FUNCTION: ZP2 FORMS WITH ZP1 AND ZP3 THE ZONA I WHICH ZP2 AND ZP3 COMPLEX INTO COPOLYMERS CROSS ZP2 ACTS AS A SECONDARY SPERM RECEPTOR.
SUBCELLULAR LOCATION: TYPE I MEMBRANE PROTEIN.
                 (BY SIMILARITY). SIMILARITY: CONT
                                               MODIFICATION, ALONG WITH PRESUMED CHANGES IN ZP3 MAY PLAY AN IMPORTANT ROLE IN THE POSTFERTILIZATION BLOCK TO POLYSPERMY PTM: SULFATED GLYCOPROTEIN WITH O-LINKED OLIGOSACCHARIDES
                                                                                                          OOGENESIS, PRIOR TO OVULATION.
PTM: IS PROTEOLYTICALLY CLEAVED
                                                                                                                                               TISSUE SPECIFICITY: OCCYTES DEVELOPMENTAL STAGE: EXPRESS
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                 CONTAINS
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Primates;
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Pred. No. 11;
0; Mismatches
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ZP.
N-LINKED (GLA

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POTENTIAL.
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                 DOMAIN
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Best Local
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077726;
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SEQUENCE
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CARBOHYD
CARBOHYD
                                                                                             TISSUE-Ovary,
MEDLINE-9825042; PubMed-9590540;
Jethanandani P., Santhanam R., Gup
"Molecular cloning and expression
encoding bonnet monkey (Macaca rad
                                                                                                                                                                                                                                           15-JUL-1999 (Rel. 38, Created)
15-JUL-1999 (Rel. 38, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
20NA PELLUCIDA SPERM-BINDING PROTEIN 2 PRECURSOR
CLYCOPROTEIN ZP2) (ZONA PELLUCIDA PROTEIN A).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                       Eukaryota; Metazoa;
Mammalia; Eutheria;
Cercopithecinae; Mac
                                                                            Mol.
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MIM; 182888; -
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            +
                                 <del>:</del>
                                                                                      glycoprotein-ZP2.";
                                                                                                                                                       SEQUENCE FROM N.A.
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Glycoprotein; Signal; Sulfatat
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                                                                                                                                                                                                                                                                                                                                                                      369
                  Reprod. Dev. 50:229-239(1998).

FUNCTION: ZP2 FORMS WITH ZP1 AND ZP3 THE Z
WHICH ZP2 AND ZP3 COMPLEX INTO COPOLYMERS
ZP2 ACTS AS A SECONDARY SPERM RECEPTOR.
SUBCELLULAR LOCATION: TYPE I MEMBRANE PROT
MATRIX.
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           PTM: IS PROTEOLYTICALLY CLEAVED AFTER FERTILIZATION,
MODIFICATION, ALONG
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3; ZPELLUCIDA.
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POTENTIAL.
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ion in Escherichia
radiata) zona pell
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                                                   A PELLUCIDA, 10
 ZP3
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RESULT 6
GLPK_MOUSE
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Q64516;
"Isolation, mapping, and functional expression of the mouse X chromosome glycerol kinase gene.";

Genomics 36:530-534(1996).

-1- FUNCTION: KEY ENZYME IN THE REGULATION OF GLYCEROL UPTAKE AND METABOLISM (BY SIMILARITY).

-1- CATALYTIC ACTIVITY: ART + GLYCEROL - ADP + GLYCEROL 3-PHOSPHATE.

-1- PATHWAY: RATE-LIMITING STEP IN GLYCEROL UTILIZATION.

-1- SUBCELLULAR LOCATION: BOUND TO THE MITOCHONDRIAL SURFACE OR
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CARBOHYD
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CARBOHYD
                                                                                                                                                                                                                                   MEDLINE=97038697; PubMed=8884278;
Huq A.H., Lovell R.S., Sampson M.J.,
Disteche C.M., Craigen W.J.;
                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-NOV-1997 (Rel.
01-NOV-1997 (Rel.
01-OCT-2000 (Rel.
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Pfam; PF00100; zona_
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SIMILARITY: CONTAINS 1 ZP DOMAIN.
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    35, Last sequence update)
    40, Last annotation update)
    (EC 2.7.1.30) (ATP:GLYCEROL 3-PHOSPHOTRANSFERASE)

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053060;
15-JUL-1998 (Rel. 36, Created)
15-JUL-1998 (Rel. 36, Last sequence update)
01-OCT-2000 (Rel. 40, Last annotation update)
GLYCEROL KINASE (EC 2.7.1.30) (ATP-GTYCEROL 3-PHOSPHOTRANSFERASE)
(GLYCEROKINASE) (GK) (ATP-STIMULATED GLUCCCORTICOID-RECEPTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa;
Mammalia; Eutheria;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
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PROSITE;
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                                                                                                                                                                                                                                                                                                                                             -! - FUNCTION: KEY ENZYME IN THE REGULATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                 promoter.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=93312338; PubMed=8323560;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NCBI_TaxID=10116;
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NP_BIND 167 1
SEQUENCE 524 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "Molecular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Rattus norvegicus (Rat)
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                                                                                                                                                               CATALYTIC ACTIVITY: ATP + GLYCEROL = ADP + GLYCER PATHMAY: RATE-LIMITING STEP IN GLYCEROL UTILIZATI SUBCELLULAR LOCATION: BOUND TO THE MITOCHONDRIAL CYTOPLASMIC (BY SIMILARITY).

SIMILARITY: BELONGS TO THE FUCOKINASE / GLUCONOKI GLYCEROKINASE / XYLULOKINASE FAMILY.
                                                                                                                                                                                                                                                                                                                                                                       FUNCTION: INCREASES THE BINDING OF ACTIVATED GLUCOCORTICOID-RECEPTOR TO NUCLEI IN THE PRESENCE OF ATP.
                                                                                                                                                                                                                                                                                                                      METABOLISM (BY SIMILARITY).
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SIMILARITY: BELONGS TO THE FUCOKINASE
GLYCEROKINASE / XYLULOKINASE FAMILY.
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lar cloning of rat liver
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5; Conserv
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PS00933; FGGY_KINASES_1; 1.
metabolism; Transferase; Kinase;
167 179 ATP (PROBABLE
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62.5%;
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liver glucocorticoid-receptor translocation
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RESULT 8
ZP2_CANFA
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                                                                                                                                                                                                                                                                                                                                                                                                                        ZP2_CANFA STANDARD; PRT; 715 A
P47983;
01-FEB-1996 (Rel. 33, Created)
01-FEB-1996 (Rel. 33, Last sequence update
01-FEB-1996 (Rel. 33, Last annotation update
01-FEB-1996 (Rel. 33, Last annotation update
COLA PELLUCIDA SPERM-BINDING PROTEIN 2 PRE
GLYCOPROTEIN ZP2) (ZONA PELLUCIDA PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         InterPro; IPR000577; -. Pfam; PF00370; FGCY; 1. PROSITE; PS00933; FGGY_KINASES_1; 1. PROSITE; PS00943; FGGY_KINASES_2; 1. Glycerol metabolism; Transferase; Kinase; A NP_BIND 167 179 ATP (PROBABLE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL;
                                                                   Pfam; PF00100; zona_pellucida; 1.
PRINTS; PR00023; ZPELLUCIDA.
PROSITE; PS00682; ZP_DOMAIN; 1.
Glycoprotein; Signal; Sulfatation;
                                                                                                           EMBL; U05779; AAA74386.1; EMBL; D45069; BAA08097.1; InterPro; IPR001507; -
                                                                                                                                                                                                                          TISSUE-Ovary;
Okazaki Y., Isojima S., Sugimoto M.;
Submitted (JAN-1995) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                           Sacco A.G.; "Cloning and characterization of a variety of mammalian species: t
                                                                                                                                                                                                                                                               SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                                                                       MEDLINE-95143578; PubMed-7841460;
Harris J.D., Hibler D.W., Fontenot G.K.,
                                                                                                                                                                                                                                                                                                                                               TISSUE-Ovary
                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                       Canis familiaris (Dog).
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                                                            Extracellular matrix
                                                                                                                                                                                                                                                                                                                                                                                                                   ZP2 OR ZPA.
                                                                                                                                                                                                                                                                                                                                                                         NCBI_TaxID=9615;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         266 GQMCFQDG 273
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P08859; 1GLB.
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5; Conserv
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685
706
367
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715
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62.
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species: the ZPA,
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BY SIMILARITY.

ZONA PELLUCIDA SPERM-BINDIN
EXTRACELLULAR (POTENTIAL).

POTENTIAL.

CYTOPLASMIC (POTENTIAL).

ZP.
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Pred. No.
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                                                                     Sperm; Receptor; Transmembrane;
                                                                                                                                                                                                                                                                                                                                                                                                                                   update)
on update)
N 2 PRECURSOR (ZONA PELLUCIDA
                                                                                                                                                                                                                                                                                          pellucida genes and PA, ZPB and ZPC gene
                                                                                                                                                                                                                                                                                                                         Hsu K.T.,
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Canis.
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families.";
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Query Match
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EMBL; U05776; AAA74388.1; -.
EMBL; D45067; BAA08095.1; -.
InterPro; IPR001507; -.
Pfam; PF00100; Zona_pellucida; 1
PRINTS; PR00023; ZPELLUCIDA.
PROSSITE; PS00682; ZP_DOMAIN; 1.
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                                                                                                                                                                                                                                                                                                                Okazaki Y., Isojima S., Sugimoto M.;
Submitted (JAN-1995) to the EMBL/GenBank/DDBJ databases.
-I- FUNCTION: ZP2 FORMS WITH ZP1 AND ZP3 THE ZONA PELLUCIDA, IN
WHICH ZP2 AND ZP3 COMPLEX INTO COPOLYMERS CROSS-LINKED BY ZP1
ZP2 ACTS AS A SECONDARY SPERM RECEPTOR.
-I- SUBCELLULAR LOCATION: TYPE I MEMBRANE PROTEIN. EXTRACELLULAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-FEB-1996 (Rel. 33, Created)
01-FEB-1996 (Rel. 33, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
ZONA PELLUCIDA SPERM-BINDING PROTEIN 2 PRECURSOR (ZONA PELLUCIDA GLYCOPROTEIN ZP2) (ZONA PELLUCIDA PROTEIN A).
                                                                                                                      entities requires a or send an email to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Felis silvestris catus (Cat).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Carnivora; Fissipedia; Felidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a variety of mammalian
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01-FEB-1996
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DNA Seq. 4:361-393(1994).
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Harris J.D., Hibler D.W., Fontenot G.K.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TISSUE-Ovary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NCBI_TaxID-9685;
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                                                                                                                     s requires a license agreement (See http://www.isb-sib.ch/announce/an email to license@isb-sib.ch).
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and characterization of zona per
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N-Y (IN REF. 2).
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S-Y (IN REF. 2).
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d ZPC gene families.";
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(POTENTIAL).
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(POTENTIAL).
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Sulfatation;

Sperm;

Receptor; Transmembrane;

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O83066;
                                                                                                                                                               This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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                                                                                                 Hypothetical protein. SEQUENCE 722 AA; 80089 MW;
                                                                                                                              EMBL; AE001187; AAC65022.1; TIGR; TP0022; -.
                                                                                                                                                                                                                                                                                                         "Complete genome sequence of Treponema pallidum, the syphilis spirochete.";
                                                                                                                                                                                                                                                                                                                                                                                                                                    STRAIN=NICHOLS;
MEDLINE=98332770; PubMed=9665876;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DOMAIN
DOMAIN
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Bacteria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      15-DEC-1998
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15-DEC-1998
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DOMAIN
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GRLCVQDG
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                           Similarity 75. 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          6,
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Spirochaetales;
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                                       . 68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Spirochaetaceae; Treponema
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   sequence update) annotation update)
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ZP.

N-LINKED (GLCNAC. . .) (PC
N-S G (IN REF. 2).

L -> P (IN REF. 2).

F -> S (IN REF. 2).
                        Score 34; DB
Pred. No. 30;
1; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 34;
Pred. No.
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ZONA PELLUCIDA SPERM-BINDING PROTEIN
EXTRACELLULLAR (POTENTIAL).
POTENTIAL.
                                                                                               BBA7E917E310F560 CRC64;
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30-MAY-2000
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EMBL; AC004954; AAC69513.1;
Interpro; IPR001627; -.
Interpro; IPR003006; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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SEMA3E OR KIAAUU...
Homo sapiens (Human).
Homo sapiens (Chordata; (C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Signal; Immunoglobulin domain; Multigene Developmental protein; Glycoprotein.
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Submitted (JUN-1998) to the EMBL/GenBank/DDB/databases.
-i- SUBCELLULAR LOCATION: SECRETED (BY SIMILARITY).
-i- SIMILARITY: BELONGS TO THE SEMAPHORIN FAMILY.
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Nagase T., Ishikawa K.-I., Nakajima D., Ohira M., Seki N.,
Miyajima N., Tanaka A., Kotani H., Nomura N., Ohara O.;
"Prediction of the coding sequences of unidentified human genes. VII.
The complete sequences of 100 new cDNA clones from brain which can code for large proteins in vitro.";
DNA Res. 4:141-150(1997).
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Mammalia; Eutheria;
NCBI_TaxID=9606;
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SIMILARITY: CONTAINS 1 IMMUNOGLOBULIN-LIKE C2-TYPE DOMAIN
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ARC/LYS-RICH (BASIC).
BY SIMILARITY.
N-LINKED (GLCNAC...) (
CD6079ClAE48F779 CRC64
                                                                                                                       Score 34; DB Pred. No. 32; 0; Mismatches
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modified and this statement is not removed. Usage by an
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STRAIN-BALB/C;
MEDLINE-98175564; PubMed-9515811;
Christensen C.R.L., Klingelhoefer J.,
Kramerov D., Lukanidin E;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleosto
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;
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P70275; O09078; O09079;
30-MAY-2000 (Rel. 39, Created)
30-MAY-2000 (Rel. 39, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
                                                                                                                                                                                                                                                                                                                                         Pfam;
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293947; CAB07987.1;
293948; CAB07988.1;
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                                                                                                                      N-LINKED (GLCNAC...) (PO)
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YRS7_CAEEL
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01-OCT-2000 (Rel. 40, Last sequal ol-OCT-2000 (Rel. 40, Last annotation approximately (EC 2.7.7.7).
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EMBL; Z47812; CAA87788.1;
EMBL; Z47812; CAA87796.1;
EMBL; Z47811; CAA87796.1;
WormPep; T05H10.7; CE03637
                                   polymerase gene.
J. Gen. Virol. 7
                                                        MEDLINE=99094630; PubMed=9880021;
Springfeld C., Tidona C.A., Kehm R.,
"Identification and characterization
polymerase gene.":
                                                                                                                                              Betaherpesvirinae.
NCBI_TaxID=132677;
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Eukaryota; Metazoa; Nematoda; Chromadorea;
Rhabditidae; Peloderinae; Caenorhabditis.
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Viruses; dsDNA viruses, no RNA
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Gen. Virol. 79:3049-3053(1998).
- CATALYTIC ACTIVITY: N DEOXYNUCLEOSIDE TRIPHOSPHATE N PYROPHOSPHATE + DNA(N).
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of the Tupaia herpesvirus
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                                                                                                                                                                      This SWISS-PROT entry is copyright. It is produced through a collaboratic between the Swiss Institute of Bioinformatics and the EMBL outstation between the Swiss Institute. There are no restrictions on in
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MEDLINE=99094630; PubMed=9880021;

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                                                                     the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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Viruses; dsDNA viruses, no RNA stage; Herpesviridae;
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Transferase; DNA-directed DNA polymerase; DNA replication; DNA-binding; Nuclear protein.
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014964 homo sapien
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09xx28 caenorhabdi
081325 arabidopsis
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Q9r3v6 vibrio chol
Q917q6 vibrio chol
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Boyd E.F., Moyer K.E., Shi L., Waldor M.K.;
"Infectious CTXPhi and the vibrio pathogenicity island prophage vibrio mimicus: evidence for recent horizontal transfer between
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              mimicus and V. cholerae.";
Infect. Immun. 68:1507-1513(2000).
EMBL; AF207857; AAF40142.1; -.
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                                                                                                                                                                                                                                                                                                                                                                    100.0%; llarity 100.0%; Conservative 0;
(TrEMBLrel. 13, (TrEMBLrel. 13,
                                                                                              PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      323
36306 MW;
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Created)
Last sequence update)
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Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                 Score 45; DB 2; Pred. No. 0.23; Mismatches (
                                                                                              PRT;
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                                                                                              399
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Matches 8
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01-0CT-2000
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STRAIN-EL TOR N16961 / SEROTYPE 01;

MEDLINE-20406833; PubMed-10952301;

Heidelberg J.E., Eisen J.A., Nelson W.C., Clayton R.A., Gwinn M.L.,

Dodson R.J., Haft D.H., Hickey E.K., Peterson J.D., Umayam L.A.,

Gill S.R., Nelson K.E., Read T.D., Tettelin H., Richardson D.,

Ermolaeva M.D., Vamathevan J., Bass S., Qin H., Dragoi I., Sellers P.,

McDonald L., Utterback T., Fleishmann R.D., Nierman W.C., White O.,

Salzberg S.L., Smith H.O., Colwell R.R., Mekalanos J.J., Venter J.C.,
                                   genes.";
Submitted (JAN-2000) to the EMBL/GenBank/DDBJ
                                                                                                                                                           Kan B., Liu Y.Q., Qi G.M., Gao S.Y.;
"Vibrio cholerae nct-CTXphi whole ge
"StA(RStA), rstB(RstB), cep(Cep), or
    EMBL; AF220606; SEQUENCE 399 A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            "Cloning
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                                                                                                                                                                                                                                                                                                     STRAIN-86015;
                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=666;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Vibrio cholerae
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ZOT OR VC1458.
Vibrio cholerae.
Bacteria; Proteobacteria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-OCT-2000 (TremBirel. ZONULAR OCCLUDENS TOXIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRAIN-0139-TOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
STRAIN-KNIH002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   291
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NCBI_TaxID=666;
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ZOT OR VC1458.
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; AF123049; AAD26854.1; --
; AE004224; AAF94615.1; --
VC1458; --
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GRLCVQDG
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8; Conser
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and Expression of zot Gene from Vibrio cholerae.";
d (JAN-1999) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Proteobacteria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (TrEMBLrel.) (TrEMBLrel.) (TrEMBLrel.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
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    44990 MW;
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Last annotation update)
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Pred. No. 0.2
0; Mismatches
CF6A3DBCC9E23EE1
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orfU(OrfU),
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fU), ace(Ace)
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Best Local S
Matches
       SEQUENCE FROM N.A.

MEDLINE-97237046; PubMed-9119394;
Stankovic T. Byrd P.J., Cooper P.R., Mc
Riley J.H., Watts G.D.J., Ambrose H., Mc
Sutcliffe A., Mills T., Taylor A.M.R.,
"Construction of a transcription map aro
telangiectasia: identification of at lea
Genomics 40.267-276(1997).
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01-NOV-1996 (TrEMBLrel. 0
01-NOV-1996 (TrEMBLrel. 0
01-OCT-2000 (TrEMBLrel. 1
RAB-RELATED GTP-BINDING P
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09WU64;
01-NOV-1999
01-NOV-1999
01-OCT-2000
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PFAM; PFO(
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SEQUENCE FROM N.A.
STRAIN=129SV; TISSUE=TESTES;
Pan Y., Decker W.K., Huq A.H.H.M., Craigen W.J.;
Pan Y., Decker W.K., Hug A.H.H.M., Craigen W.J.;
Pan Y., Decker W.H.H.M., Craigen W.J.;
Pan Y., Decker W.H.M., Craigen W.J.;
Pan Y., Decker W.H.
                                                                                                                                                                                                    Homo sapiens (Human)
Eukaryota; Metazoa; (
Mammalia; Eutheria; )
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PROSITE;
                                                                                                                                                                                                                                                                                                                                                  Q14964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        chromosome to autosomes: Fur Submitted (JAN-1999) to the EMBL; AF117733; AAD24550.1; HSSP; P08859; 1GLC.
                                                                                                                                                                               NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa;
Mammalia; Eutheria;
NCBI_TaxID=10090;
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01-NOV-1999 (TYEMBLYEL 12, I
01-OCT-2000 (TYEMBLYEL 15, I
GLYCEROL KINASE-LIKE PROTEIN
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PS00445;
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8; Conser
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)370; FGGY; 1.
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                                                                                                                                                                                                                                                                                                                                                  PRELIMINARY;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRELIMINARY;
CAA68227.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                             273
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ĀΑ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ALDEHYDE_DEHYDR_CYS; UNKNOWN_1 FGGY_KINASES_2; 1. FGGY_KINASES_1; UNKNOWN_1.
                                                                                                                                                                                                Chordata; Craniata; Vertebrata; Primates; Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Chordata;
Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        59871
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               84.48;
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                                                                                                                                                                                                                                                01, Created)
01, Last sequence update)
15, Last annotation update)
PROTEIN (FRAGMENT).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MW.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 38; DB
Pred. No. 9.7;
2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMBL/GenBank/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Last annotation
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 45;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Craniata; Vertebrata; 1
Sciurognathi; Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        F807404B79F373F9
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                                                   around
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                                                                                      McGuire
                                                                                                       McConville C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB
9.7;
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                                                                                                                                                                                                  Hominidae;
                                d the
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                                                                                  G.,
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                                novel genes.";
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                                                                                      Smith
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                                                                                                                                                                                                                   Euteleostomi;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Murinae;
                                                                                                       Munroe D.J.,
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RESULT OR RESULT OR ACCOMMENT OF THE PROPERTY 
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049465
    RRR OCCOON DTT DTC
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Best Local S
Matches
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Best Local S
Matches 5
                                                                              01-JUN-1998 (TrEMBLrel. 06, Created)
01-JUN-1998 (TrEMBLrel. 06, Last sequence update
01-OCT-2000 (TrEMBLrel. 15, Last annotation upda
HYPOTHETICAL 47.7 KDA PROTEIN.
F24J7.30 OR AT4G19470.
Arabidopsis thaliana (Mouse-ear cress).
Eukaryota; Viridiplantae; Embryophyta; Tracheoph
Magnoliophyta; eudicotyledons; core eudicots; Ro
Brassicales; Brassicaceae; Arabidopsis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   INTERPRO; IPR001764; ...
INTERPRO; IPR002772; ...
PERM; PE00933; Glyco_hydro_3; 1.
PFAM; PF01915; Glyco_hydro_3_c; 1.
PFAM; PF00133; GLHYDRLASE3.
PROSITE; PS00775; GLYCOSYL_HYDROL_F3; 1.
Hydrolase; Glycosidase
SEQUENCE 870 AA; 95467 MM; E0FDDEF20
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INTERPRO; IPR001806; -

PFAM; PF00071; ras; 1.

PRINTS; PR00449; RASTRNSFRMNG.

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                                                                                                                                                                                                                                                                                 049465;
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Coccidioides.
NCBI_TaxID=5501;
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01-JAN-1998 (TrEMBLrel. 05, Last sequence update)
01-MAY-2000 (TrEMBLrel. 13, Last annotation updata
SEQUENCE FROM N.A. Bevan M., Vitale I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Yu J.-J., Thomas P.W., Ses
Submitted (JAN-1997) to th
EMBL; U87805; AAB67972.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
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                                                              NCBI_TaxID=3702;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRAIN-C735;
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                                                                                                                                                                                                                                                                                                                                                                                                              103
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5; Conserv
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217 AA;
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  Liguori
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                                                                                                                                                                                                                  Last sequence update)
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EMBL/GenBank/DDBJ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          E0FDDEF20CD64E1F CRC64;
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  Argiriou
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                                                                                                                             Tracheophyta;
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  Α.,
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                                                                                                           Rosidae;
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  Simone
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                                                                                                         Spermatophyta;
e; eurosids II;
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Best Local Similarity burners
6; Conservative
                                            Query Match
Best Local
                                   Matches
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Submitted (MAR-2000) to the EMBL/C
EMBL; AL031768; CAA16924.1; -
EMBL; AL161550; CAB78949.1; -
MENDEL; 27536; Arath; 3338; 27536.
INTERPRO; IPRO01611;
PFAM; PF00560; LRR; 1.
                                                                                                                                                                                                                                                                                                                                 069514;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Submitted [2]
                                                                                      Eiglmeier K., Honore N., Woods S.A.,
"Use of an ordered cosmid library to
of Mycobacterium leprae.";
Mol. Microbiol. 7:197-206(1993).
EMBL; AL023596; CAA19155.1;
INTERERRO; IPR000862;
                                                                                                                                                                                 SEQUENCE
Parkhill
                                                                                                                                                                                                            Seeger K.,
Submitted
                                                                                                                                                                                                                                               Bacteria; Firmicutes;
Actinomycetales; Coryn
NCBI_TaxID=1769;
                                                                                                                                                                                                                                                                                            01-AUG-1998 (TrembLrel. 07, 01-AUG-1998 (TrembLrel. 07, 01-JUN-2000 (TrembLrel. 14, DNA POLYMERASE III SUBUNITS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
Vitale D., Liguori R.,
Lemcke K., Mayer K.F.X.
Submitted (MAR-2000) to
                                                                                                                                             SEQUENCE FROM N.A. MEDLINE=93188700; PubMed=8446027;
                                                                                                                                                                         Submitted
                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                           Mycobacterium leprae.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Hypothetical SEQUENCE 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Bancroft I.,
187
                                                                                                                                                                                                                                                                                                                                                                                      373 GRLCVQE 379
                1 GRLCVQDG
                                                                                                                                                                                                                                                                                                                                                                                                1 GRLCVQD
                                                                                                                                                                                                                                                                                                                                                           8
GRICAQEG
                                  Similarity
5; Conserv
                                                                                                                                                                                 J., Barre
                                                                                                                                                                       J., Barrell
(MAY-1998)
                                                                                                                                                                                                            (MAY-1998)
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                                   Conservative
                                                                                                                                                                                                                                                                                                                                          PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mewes H.W.,
                                                                                                                                                                                                                                                                                                                                                                                                         7
194
                                                                               A,
                                                                                                                                                                                                                                                         Corynebacterineae;
                                                                              65535 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       47658
                                            77.8%;
62.5%;
                                                                                                                                                                        B.G., R
to the
                                                                                                                                                                                                                                                                                                                                                                                                                                   77.8%;
85.7%;
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to the EMBL/G
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ₩;
                                                                                                                                                                        Rajandream M.A.;
e EMBL/GenBank/DDBJ
                                                                                                                                                                                                            EMBL/GenBank/DDBJ
                                                                                                                                                                                                                                                                                            Created)
Last sequence update)
Last annotation update)
GAMMA AND TAU.
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                                                                                                                                                                                                                                                                                                                                                                                                                          Score 35; DB Pred. No. 30; 1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL/GenBank/DDBJ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL/GenBank/DDBJ
                                            Score 35;
Pred. No.
                                                                               39BAD5F9E63636F6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       18A577B4CBD1AAE5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Α.,
                                  Mismatches
                                                                                                                            6
                                                                                                                                                                                                                                                                                                                                                                                                                                  No.
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deduce t
                                                                                                                                                                                                                                                                                                                                          611
                                            DB
43;
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                                                    Length 611;
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genomic organization
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TISSUE-CARDIAC MUSCLE;
Wang D.-Z., Lin J.J.-C.;
Submitted (MAR-1998) to the EI
EMBL; AF051945; AAC06023.1; -
MCD; MGI.1338678; Xin.
SEQUENCE 1677 AA; 182084 M
                                      Wilson R., Ainscough R., Anderson K., Baynes C., Berks M.,
Bonfield J., Burton J., Connell M., Copsey T., Cooper
Craxton M., Dear S., Du Z., Durbin R., Favello A., Fulton L.,
Gardner A., Green P., Hawkins T., Hillier L., Jier M., Johnston
Jones M., Kershaw J., Kirsten J., Laister N., Latreille P.,
Lightning J., Lloyd C., Mcmurray A., Mortimore B., O'Callaghan M
Parsons J., Percy C., Rifken L., Roopra A., Saunders D., Shownke,
Smaldon N., Smith A., Sonnhammer E., Staden R., Sulston J.,
Thierry-Mieg J., Thomas K., Vaudin M., Vaughan K., Waterston R.,
Watson A., Weinstock L., Wilkinson-Sproat J., Wohldman P.;
"2.2 M of contiguous nucleotide sequence from chromosome III of
                                                                                                                                                                                                                                 Wall M.;
"2.2 Mb of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-AUG-1998
01-AUG-1998
01-MAY-2000
        elegans.";
Nature 368:32-38(1994)
EMBL; ALO31633; CAA210
                                                                                                                                                                                                                                                                                                     Caenorhabditis elegans.
Eukaryota; Metazoa; Nematoda;
Rhabditidae; Peloderinae; Caen
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01-NOV-1999 (TrEMBLrel.
01-OCT-2000 (TrEMBLrel.
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TISSUE-CARDIAC MUSCLE;
Wang D.-Z., Hu X., Lin J.L.-C.,
Front. Biosci. 1:0-0(1996).
                                                                                                                                                                                                            Submitted
                                                                                                                                                                                                                                                                                           NCBI_TaxID=6239;
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Mammalia; Eutheria;
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Sciurognathi; Muridae;
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; Murinae; Mus
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PFAM; PF00678; adh_short_C2; 1.
PRINTS; PR00080; SDRFAMILY.
PRINTS; PR00081; GDHRDH.
PRINTS; PR01167; INSAHFAMILY.
PROSITE; PS00061; ADH_SHORT; UN
SEQUENCE 296 AA; 31244 MW;
                    Q9QX23
Q9QX23;
Q1-MAY-2000
01-MAY-2000
01-JUN-2000
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01-NOV-1998 (Trew
01-NOV-1998 (Trew
01-NOV-1998 (Trew
F6N15.2 PROTEIN
F6N15.2.
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EMBL; AF06
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NCBL_TaxID=3702;
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STRAIN=CV. COLUMBIA;
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STRAIN-CV. COLUMBIA;
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00 (TrEMBLrel. : 00 (TrEMBLrel. : 00 (TrEMBLrel. : 00 M-SEMAK.
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71.48;
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the EMBL/GenBank/DDBJ
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Pred. No. 34;
O; Mismatches
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Pred. No. 53;
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; B1518A53D4ABE025 CRC64;
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dicots; Rosidae; eurosids II;
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Miyazaki N., Furuyama T., Inagaki S.;
A novel semaphorin, M-SemaK which inhibits neural outgrowth sensory neurons.*;
Submitted (NOV-1997) to the EMBL/GenBank/DDBJ databases.
EMBL; AF034744; AAD01996.1;
INTERPRO; IPR001627;
INTERPRO; IPR003006;
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PFAM; PF01403; Sema; 1.
PFAM; PF01403; Sema; 1.
SEQUENCE 775 AA; 89542 MW; 221E766F40409BD4 CRC64;
  084353
                                                                                                                                                        PFAM; PF00136; DNA_POL_B; 1.
PRINTS; PR00106; DNAPOLB.
PROSITE; PS00116; DNA_POLYMERASE_B; 1.
DNA-directed DNA polymerase; DNA repli
NON_TER 1048 1048
SEQUENCE 1048 AA; 115336 MW; BIEB7
                                                                                                                                                                                                                                                          Berthomme H., Monahan S.J., Parris D.S., Jacquemont B., "Cloning, sequencing, and functional characterization on subunits of the pseudorables virus DNA polymerase holoes for specificity of interaction.";
J. Virol. 69:2811-2818(1995).
-i- CATALYTIC ACTIVITY: N DEOXYNUCLEOSIDE TRIPHOSPHATE
                                                                                                                                                                                                                                                                                                                                                                        Viruses; dsDNA viruses, no RNA stage; Alphaherpesvirinae; Varicellovirus. NCBI_TaxID=10345;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q69390;
Q69390;
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EMBL; L24487; AAA74383.1; -.
INTERPRO; IPRO02064; -.
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Sciurognathi; Muridae;
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STRAIN-MODN / NIGG;

MEDLINE-20150255; PubMed-10684935;

Read T.D., Brunham R.C., Shen C., Gill S.R., Heidelberg J.F.,

Read T.D., Hickey E.K., Peterson J., Utterback T., Berry K., B.

Linher K., Weidman J., Khouri H., Craven B., Bowman C., Dodson

Gwinn M., Nelson W., DeBoy R., Kolonay J., McClarty G., Salzbe

Elsen J., Fraser C.M.;

"Cenoma Serverses" A.
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01-OCT-2000
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EMBL; AE001308; AAC67944.1; -
SEQUENCE 196 AA; 21978 MW; E
                                                                                                                                                                  SEQUENCE FROM N.A.

Read T.D., Brunham R., Shen C., Gill S.R., Heidelberg J.F., Whi Hickey E.K., Peterson J., Umayam L.A., Utterback T., Berry K., Bass S., Linher K., Weidman J., Khouri H., Craven B., Bowman C. Dodson R., Gwinn M., Nelson W., DeBoy R., Kolonay J., McClarty Salzberg S.L., Eisen J., Fraser C.M.; Submitted (MAR-2000) to the EMBL/GenBank/DDBJ databases.
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01-NOV-1998 (TrEMBLrel.
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                                                                                                        EMBL; AE002331; AAF39457.1;
TIGR; TC0628; -.
SEQUENCE ' 196 AA; 21730 M
                                                                                                                                                                                                                                                                                                                                                              "Genome sequences of Chlamydia trachomatis pneumoniae AR39.";
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Mitchell W.P., Olinger
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lman S., Lammel C.
inger L., Tatusov
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US-08-486-150A-10
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-08-513 -08-513 -08-513 -08-106 -08-811 -08-855 -08-855 -08-855 -08-666

Application US/08624601

ALIGNMENTS

ORGANISM: Vibrio cholerae STRAIN: El Tor 7946 IMMEDIATE SOURCE: CLONE: Zot US-08-624-601-8 Sequence 8, Applic Patent No. 5882653 TELEFAX: (202)414-4040 INFORMATION FOR SEQ ID NO: APPLICATION NUMBER: US/08/6 FILING DATE: 08-APR-1996 CLASSIFICATION: 424 ATTORNEY/AGENT IMPORMATION: NAME: Schneller Dr., John W REGISTRATION NUMBER: 26,031 GENERAL COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA: APPLICANT: Kaper Dr., James B. APPLICANT: Levine Dr., Myron M. TITLE OF INVENTION: Vibrio cholerae O1 (CVD111) and non-O1 TITLE OF INVENTION: (CVD112 and CVD112RM) serogroup vaccine strains, methods TITLE OF INVENTION: of making same and products thereof NUMBER OF SEQUENCES: 16 HYPOTHETICAL: NO ANTI-SENSE: NO ORIGINAL SOURCE: SEQUENCE CHARACTERISTICS: LENGTH: 400 amino acids REFERENCE/DOCKET NUMBER: BA TELECOMMUNICATION INFORMATION; TELEPHONE: (202)414-4000 CORRESPONDENCE ADDRESS: TOPOLOGY: li STREET: CITY: Wa STATE: E COUNTRY: ZIP: 200 STRANDEDNESS: TYPE: amino acid ADDRESSEE: INFORMATION: 20005 Washington D.C. E: Spencer & Frank 1100 New York Ave. USA linear peptide US/08/624,601 26,031 œ BAMCZ0019P2 Σ Z. E. Suite 300

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INFORMATION FOR SEQ ID NO:
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TITLE OF INVENTION:
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PRIOR APPLICATION DATA:
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MEDIUM TYPE: FLOPPY DISK
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TELEPHONE: (212) 758-4800
TELEFAX: (212) 751-6849
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                                                                                                                                                                                   MOLECULE TYPE:
ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                             SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES: 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |||||||||
291 GRLCVQDG 298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STATE: NEW YORK
                                                           CELL TYPE:
                                                                                                                                                                                                                                                                                                                                                                      REFERENCE/DOCKET NUMBER: 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US 08/038,948 FILING DATE: 26-MAR-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US/0: FILING DATE: 30-May-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER: IBM PC COMPATIBLE OPERATING SYSTEM: PC-DOS/MS-DOS
NAME/KEY:
LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 GRLCVQDG 8
                                                                                                                       DEVELOPMENTAL STAGE:
                                                                                                                                                      STRAIN:
                                                                                                                                                                      ORGANISM: human
                                                                                                                                                                                                                  TOPOLOGY:
                                                                                                                                                                                                                                STRANDEDNESS:
                                                                                                                                                                                                                                             TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADDRESSEE:
                                             ORGANELLE:
                                                                                                         HAPLOTYPE:
                                                                                          FISSUE TYPE:
                                                                                                                                       INDIVIDUAL ISOLATE:
                                                                                                                                                                                                                                                                ENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                       DOROTHY R. AUTH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NEW YORK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          345 PARK AVENUE
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                                                                                                                                                                                                                  unknown
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                                                                                                                                                                                                protein
                                                                                                                                                                                                                                  single
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100.0%; Pred. No. 0.:
tive 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BASED ON ALLOIMMUNIZATION WITH ZONA PELLUCIDA POLYPEPTIDES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CONTRACEPTIVE VACCINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              us 07/930,462
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           B
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US-08-038-948-9
밁
                                               Query Match
Best Local Similarity
"~+~hes 6; Conserv?
                                                                                                                                       ; MOLECULE TYPE: protein US-08-038-948-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 9, Application US/08038948 Patent No. 5641487 GENERAL INFORMATION:
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Matches 6; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                          FILING DATE: 20-AUG-1992
PRIOR APPLICATION DATE:
RAPPLICATION UNMBER: US 07/
FILING DATE: 12-JUN-1989
ATTORNEY/AGENT INFORMATION:
NAME: SCOTT, WATSON T.
REGISTRATION NUMBER: 26.58
                                                                                                                                                                                                                                                 TELEFAX: (202) 822-0944
TELEX: 6714627 CUSH
INFORMATION FOR SEQ ID NO: 9
                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/930,462
APPLICATION NUMBER: 20-AUG-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                             REFERENCE/DOCKET NUMBER: 99
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202) 861-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                    SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           369 GELCTQDG 376
369 GELCTQDG 376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OPERATING SYSTEM:
SOFTWARE: PatentII
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US/0 FILING DATE: 26-MAR-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ZIP: 20005-3918
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CITY: Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STREET:
                                                                                                                                                                      STRANDEDNESS: Sir
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 GRLCVQDG 8
                               1 GRLCVQDG 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADDRESSEE:
                                                                                                                                                                                                                    LENGTH:
                                                                                                                                                                                                    amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        E: CUSHMAN, DARBY & CUSHMAN 1100 New York Avenue, N.W.
                                                                                                                                                                                                                    745 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            U.S.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DEAN, JURRIEN
                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PatentIn Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                     single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CONTRACEPTIVE VACCINE BASED ON ALLOIMMUNIZATION WITH ZONA PELLUCIDA POLYPEPTIDES
                                                                            80.0%;
75.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                         US 07/364,379
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Pred. No.
                                                               0,
                                                                              Score 36; DF Pred. No. 33;
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                                                               Mismatches
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33;
                                                                                              DB 1; Length 745;
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                                                               Indels
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RESULT

GENERAL INFORMATION:

JURRIEN

ce 5, Application US/08453952 No. 5672488

CORRESPONDENCE ADDRESS:

TITLE OF INVENTION: CONTRACEPTIVE VACCINE
TITLE OF INVENTION: BASED ON ALLOIMMUNIZATION WITH ZONA PELLUCIDA
TITLE OF INVENTION: POLYPEPTIDES

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369 GELCTQDG 376

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                                                                                                                            : LOCATION:
: IDENTIFICATION METHOD:
: OTHER INFORMATION: human ZP2 protein
US-08-453-952-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME: DOROTHY R. AUTH
REGISTRATION NUMBER: 36,434
REFERENCE/DOCKET NUMBER: 2026
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 758-4800
TELEPAX: (212) 751-6849
TELEPX: 421792
INFORMATION FOR SEQ ID NO: 5:
                                                              Query Match
Best Local
                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CLASSIFICATION: 424
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/038,948
FILING DATE: 26-MAR-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/930,462
FILING DATE: 20-AUG-1992
PRIOR APPLICATION DATA:
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STREET: JAC
STREET: NEW YORK
STATE: NEW YORK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: FLOPPY DISK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US 07/364,379 FILING DATE: 12-JUN-1989 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                   MOLECULE TYPE:
ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER: IBM PC COMPATIBLE OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                          NAME/KEY: 2P2
                                                                                                                                                                                                                        ORGANELLE:
                                                                                                                                                                                                                                          CELL LINE:
                                                                                                                                                                                                                                                      CELL TYPE:
                                                                                                                                                                                                                                                                                                    INDIVIDUAL ISOLATE:
DEVELOPMENTAL STAGE:
                                                                                                                                                                                                                                                                                                                                                                                                   TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: amino acid
STRANDEDNESS: sir
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER:
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1 GRLCVQDG 8
                                                                                                                                                                                                                                                                                                                                                   DRGANISM:
                                                                                                                                                                                                                                                                                                                                                                                                                                              ENGTH:
                                                                                                                                                                                                                                                                      SSUE TYPE:
                                                              Similarity
                                               6.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                345 PARK AVENUE
                                               Conservative
                                                                                                                                                                                                                                                                                                                                                   human
                                                                                                                                                                                                                                                                                                                                                                                               unknown
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                                                                                                                                                                                                                                                                                                                                                                               protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     30-May-1995
                                                                                                                                                                                                                                                                                                                                                                                                                single
                                                              80.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US/08/453,952
                                              Score 36; DB Pred. No. 33; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2026-4032 US4
                                                                             DB 1; Length 745;
                                               2
                                               Indels
                                              0
                                              Gaps
                                              0
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Sequence 5, Application US/08862903
Patent No. 5916768
GENERAL INFORMATION:
APPLICANT: DEAN, JURRIEN
TITLE OF INVENTION: CONTRACEPTIVE
TITLE OF INVENTION: BASED ON ALLO:
TITLE OF INVENTION: POLYPEPTIDES
                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
Trhes 6; Conserv
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US-08-484-993B-43
                                                                                                                                                             US-08-862-903-5
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 43, Application US/08484993B
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                                                                                                                                                                                                                                                                                                                                                                                                                                         INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS: LENGTH: 745 amino acid
                                                                                                                                                                                                                                                                                                                                                                                       TOPOLOGY: linear MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/01
FILING DATE: 29-JAN-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION DATA:
APPLICATION NUMBER: US,
FILING DATE: 09-NOV-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELECOMMUNICATION INFORMATION: TELEPHONE: 312/474-6653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Harris Ph.I
APPLICANT: Hsu, Kuang
APPLICANT: Podolski,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                              NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEFAX: 25-3856
                                                                                                                                                                                                                                369 GELCTQDG 376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEPHONE: 312/474-0448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME: Clough, David W. REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CITY: Chicago
                                                                                                                                                                                                                                                             1 GRLCVQDG 8
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                                                                                                                                                                                                                                                                                                                                                                                                                           amino acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                            745 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               United States of America
                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PatentIn Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Harris Ph.D., Jeffrey D
MORGAN & FINNEGAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  09-NOV-1992
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Materials and Methods : 59
                                              CONTRACEPTIVE VACCINE
BASED ON ALLOIMMUNIZATION WITH ZONA PELLUCIDA
POLYPEPTIDES
                                                                                                                                                                                                                                                                                                              80.0%;
75.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Joseph S.
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                                                                                                                                                                                                                                                                                                            Score 36; DB Pred. No. 33;
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South Wacker Drive
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                                                                                                                                                                                                                                                                                                                             Length 745;
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COMPUTER READABLE FORM: MEDIUM TYPE: FLOPPY DISK

C: 345 PARK AVENUE
NEW YORK
NEW YORK

Pharmaceutical Compositions for

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                                                              US-08-484-158B-43; Sequence 43, Application US/08484158B; Patent No. 5976545
                                                                                                                                                                                                                                                                                    ; IDENTIFICATION METHOD: ; OTHER INFORMATION: human ZP2 protein US-08-862-903-5
                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                          Query Match
                                 tent No. 59/03...
TENERAL INFORMATION:
HATTIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEX: 421792
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                  APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: 12-JUN-1989
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION DATA:
PRIOR APPLICATION NUMBER: US 07/364,379
FILING DATE: 12-JUN-1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/930,462
FILING DATE: 20-AUG-1992
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PRIOR APPLICATION NUMBER: US 08/038,948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: WORDPERFECT CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OLECULE TYPE:
                                                                                                                                                     369 GELCTQDG 376
                                                                                                                                                                                                             Local Similarity 75.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER: IBM PC
OPERATING SYSTEM:
                                                                                                                                                                    1 GRLCVQDG 8
                                                                                                                                                                                                                                                                                                                                             NAME/KEY: ZP2
                                                                                                                                                                                                                                                                                                                                                                                                                                              INDIVIDUAL ISOLATE:
DEVELOPMENTAL STAGE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRANDEDNESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: US 01 FILING DATE: 26-MAR-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US/08/862,903 FILING DATE: 30-May-1995
                                                                                                                                                                                                                                                                                                                                 LOCATION:
                                                                                                                                                                                                                                                                                                                                                                          ORGANELLE:
                                                                                                                                                                                                                                                                                                                                                                                         CELL TYPE:
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                                                                                                                                                                                                                                                                                                                                                                                                                    TISSUE TYPE:
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Harris Ph.D., Jeffrey D.
Hsu, Kuang T.
Podolski, Joseph S.
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SYSTEM: PC-DOS/MS-DOS
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75.0%;
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                                                                                                                                                                                                                           Score 36;
Pred. No.
                                                                                                                                                                                                             Mismatches
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Best Local Similarity
Conserve
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; MOLECULE TYPE:
US-08-484-158B-43
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                                                                                                                                                                                                                                                                                                                                                                                                                                                               Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 43, Application US/08484596A Patent No. 5981228
                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRILING DATE: 29-JAN-93
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/973
FILING DATE: 09-NOV-92
ATTORNEY/AGENT INFORMATION:
                                                                                                                               NUMBER OF SEQUENCE ADDRESS:

CORRESPONDENCE Ad
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE/DOCKET NUMBER: 32: TELECOMMUNICATION INFORMATION: TELEPHONE: 312/474-6653
                                                                                                                                                                                                                                                                                APPLICANT: Harris Ph.D., Jeffr
APPLICANT: Hsu, Kuang T.
APPLICANT: Podolski, Joseph S.
TITLE OF INVENTION: Materials
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: 08/149,223
FILLING DATE: 09-NOV-93
PRIOR APPLICATION DATA:
PRIOR APPLICATION NUMBER: 08/012,990
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          369 GELCTQDG 376
                                                                 CITY: Chicago
STATE: Illinois
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEPHONE: 312/474-0448
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
                             COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REGISTRATION NUMBER: 3
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: FILING DATE: 07-JU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COUNTRY: United ZIP: 60606-6402
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADDRESSEE:
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60606-6402
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                                    United States of America
                                                                                                                                                                                                                                                                                                                                                                                      Harris Ph.D., Jeffrey D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                protein
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                                                                                                                                                                                                                                                                                Materials and Methods for Immunocontraception
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75.0%;
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Pred. No.
                                                                                                                                      Gerstein, Murray & Borun
South Wacker Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 745
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MEDIUM TYPE: Floppy disk

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TELLEFAX: 314,
TELES: 25-3856
TELEX: 25-3856
INFORMATION FOR SEQ ID NO: 43:
SEQUENCE CHARACTERISTICS:
LENGTH: 745 amino acids
TVDE: amino acids
TVDE: amino acid
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Best Local Similarity
Matches 6; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC Compatible
COMPUTER: PATEN: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION UMBER: US/08/480,150A
FILING DATE: 07-UN-1995
CLASSIFICATION: 424
CLASSIFICATION: 424
                                                                    PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/149,223
FILING DATE: 09-NOV-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: 07/97
FILING DATE: 09-NOV-1992
ATTORNEY/AGENT INFORMATION:
NAME: Clough, David W.
                APPLICATION NUMBER:
FILING DATE: 29-JAN-
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Harris Ph.D., Jeffrey D.
APPLICANT: Hsu, Kuang T.
APPLICANT: Podolski, Joseph S.
TITLE OF INVENTION: Materials and Methods for Immunocontraception
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE/DOCKET NUMBER: 31
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312/474-6653
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APPLICATION NUMBER: 08/149,223
FILING DATE: 11-NOV-1993
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQUENCES: 59
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                                                                                                                                                                                                                                                                                                                                                           STREET: 6300 S
CITY: Chicago
STATE: Illinoi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 369 GELCTQDG 376
                                                                                                                                                                                                                                                                                                                   COUNTRY: United ZIP: 60606-6402
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME: Clough, David W. REGISTRATION NUMBER: 3
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US/08/484,596A
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                                                                                                                                                                                                                                                                                                                                Illinois United States of America
                                                                                                                                                                                                                                                                                                                                                                                              E: Marshall, O'Toole, Gerstein, Murray & Borun 6300 Sears Tower, 233 South Wacker Drive
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                                     29-JAN-1993
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                                                     08/012,990
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07/973,341
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Pred. No.
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Best Local Similarity
"---ches 6; Conserv
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TELEPHONE: 312/474-653
TELEFAX: 312/474-0448
TELEX: 25-3856
INFORMATION FOR SEQ ID NO: 43:
SEQUENCE CHARACTERISTICS:
LENGTH: 745 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 43,
Patent No. 6
                                                                                                                                                                                             PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/012,990
FILING DATE: 29-JAN-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/973,341
FILING DATE: 09-NOV-1992
ATTORNEY/AGENT INFORMATION:
NAME: Clough, David W
REGISTRATION NUMBER: 36,107
REGISTRATION NUMBER: 36,107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
                                                                                     TELEFAX: 312/474-0448
TELEX: 25-3856
INFORMATION FOR SEQ ID NO:
MOLECULE TYPE:
                                                   SEQUENCE CHARACTERISTICS:
LENGTH: 745 amino acids
                                                                                                                                                             REFERENCE/DOCKET NUMBER: 31 TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE: Patentin Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TOPOLOGY: 11
MOLECULE TYPE:
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                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US/08/458,731 FILING DATE: 09-NOV-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER: IBM PC
OPERATING SYSTEM:
                                  TYPE: amino acid
                                                                                                                           TELEPHONE: 312/474-6653
TELEFAX: 312/474-0448
                                                                                                                                                                                                                                                                                                                                                                    CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CITY: Chicago
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME: Clough, David W. REGISTRATION NUMBER: 36,107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COUNTRY: United States of America
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE/DOCKET NUMBER:
                    TOPOLOGY:
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Podolski, Jos
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IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
                  linear
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75.0%;
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Pred. No.
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US-08-458-731-43

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US-08-149-223A-43
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Best Local Similarity
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             RESULT 12
US-08-484-993B-10
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                                                                                                                                           Query Match
Best Local
Sequence 10,
                                                                                                                             Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: Flopy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                      NFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                             TELECOMMUNICATION INFORMATION: TELEPHONE: 312/474-6653
                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: 07/97 FILING DATE: 09-NOV-1992 ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ITLE OF INVENTION: Materials and Methods for Immunocontraception UMBER OF SEQUENCES: 59
                                                                      369 GELCTQDG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CITY: Chicago
STATE: Illinois
                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: FILING DATE: 29-JAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US/0 FILING DATE: 09-NOV-1993
                                                                                                                                                                                                                                                                                                                                                                     NAME: Clough, David W. REGISTRATION NUMBER: 3
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                                                                                                                          Local Similarity es 6; Conserv
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Application US/08484993B
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                                                                                                                               Conservative
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75.0%;
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Pred. No.
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Query Match
Best Local Similarity
Thes 6; Conserv
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US-08-484-158B-10
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COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFFMARRE: Patentin Release #1.0, Version #1.
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/484,993R
FILLING DATE: 09-NOV-1000
CLASSTETCIE: 09-NOV-1000
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                                                                                                                                                                                                                  Patent No. 5976545
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/012
FILING DATE: 29-CAN-1993
PRIOR APPLICATION DATA:
APPLICATION UMBER: 07/973
FILING DATE: 09-NOV-1992
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                    GENERAL INFORMATION:
APPLICANT: Harris
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CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Hsu, Kuang APPLICANT: Podolski,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Harris Ph.D., Jeffrey D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELECOMMUNICATION INFORMATION: TELEPHONE: 312/474-6653
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CITY: Chicago
STATE: Illinoi
                                                                                          NUMBER OF SEQUENCES: 6
                                                                                                                          TITLE OF INVENTION:
                                                                                                                                                         APPLICANT:
                                                                                                                                                                        APPLICANT:
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                                                                                                                                                                                                                                                                                                                  366 GDLCTQDG 373
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME: Clough, David W. REGISTRATION NUMBER: 3
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                            STREET: 6300 :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           amino acid
Illinois
: United States of America
                                                                                                                                                                                                                                      Application US/08484158B
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6300 Sears Tower, 233 South Wacker Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            715 amino acids
                                           E: Borun
6300 Sears Tower,
                                                                                                                                                                                                                                                                                                                                                                                 Conservative
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                                                                                                                                                                                      Harris Ph.D., Jeffrey D.
                                                                                                                                                        Podolski,
                                                                                                                                                                       Hsu, Kuang
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                                                                         Marshall, O'Toole, Gerstein, Murray &
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                                                                                                                                                                                                                                                                                                                                                                                                  75.6%;
75.0%;
                                                                                                                                         Pharmaceutical Compositions for
                                                                                                                          Immunocontraception
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                                                                                                                                                           Joseph S.
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Pred. No.
                                              233 South Wacker Drive
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OMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: LBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS

PatentIn

Release #1.0, Version #1.25

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Best Local Similarity
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                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                               SOFTWARE: Patentin Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                APPLICANT: Harris Ph.D., Jeffrey D. APPLICANT: Hsu, Kuang T. APPLICANT: Podolski, Joseph S. TITLE OF INVENTION: Materials and Methods NUMBER OF SEQUENCES: 59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS:
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APPLICATION NUMBER:
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APPLICATION NUMBER: 08
FILING DATE: 29-JAN-93
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TELEFAX: 25-3856
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CLASSIFICATION:
(IOR APPLICATION DATA:
APPLICATION NUMBER:
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CLASSIFICATION:
                                                                                                                                                                           COUNTRY: United States of America ZIP: 60606-6402
                                                                                                                                                                                                                        CITY: Chicago
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                                                             APPLICATION NUMBER:
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amino acid
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   08/149,223
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Tower, 233
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Pred. No.
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South Wacker Drive
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEPHONE: 312/474-0653
TELEFAX: 312/474-0448
TELEX: 25-3856
INFORMATION FOR SEQ ID NO: 10
SEQUENCE CHARACTERISTICS:
LENGTH: 715 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 10,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
                                                                                                                                                                                                                            APPLICATION NUMBER: US/08/480,150, FILLING DATE: 07-JUN-1995
CLASSIFICATION: 424
PRIOR APPLICATION DATA: APPLICATION NUMBER: US 08/149,223
FILLING DATE: 09-NOV-1993
                                                                                                                                               FILING DATE: 29-JAN-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/97
FILING DATE: 09-NOV-1992
                                                                                                                                                                                                                                                                                                                                  COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOTTWARE: Patentin Release #1.0, CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION: Materials and Methods for Immunocontraception NUMBER OF SEQUENCES: 59
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE: 09-NOV-1992 ATTORNEY/AGENT INFORMATION:
                                                TELEPHONE: 312/474-6653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 11-NOV-PRIOR APPLICATION DATA:
                                                                                                                                ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       366 GDLCTQDG 373
                                                                                                  NAME: Clough, David W
REGISTRATION NUMBER: :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME: Clough, David W. REGISTRATION NUMBER:
                             TELEFAX:
                                              TELEPHONE:
                                                                                 REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                 APPLICATION NUMBER: 08/012,990
                                                                                                                                                                                                                                                                                                                                                                                                                                                    COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CITY: Chicago
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GY: linear
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FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Application US/08480150A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     E: Marshall, O'Toole, Gerstein, Murray & 6300 Sears Tower, 233 South Wacker Drive
                                312/474-0448
                                                                                                                                                                                                                                                                                                                                                                                                                                                      United States of America
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Podolski,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Hsu, Kuang
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; SEQUENCE CHARACTERISTICS:
; LENGTH: 715 amino acids
; TYPE: amino acids
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-480-150A-10

Query Match
Best Local Similarity 75.0%; Pred. No. 75;
Matches 6; Conservative 0; Mismatches 2; Indels 0; Gaps 0;
Matches 6; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Oy 1 GRLCVQDG 8
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Db 366 GDLCTQDG 373

Search completed: June 13, 2001, 14:16:33

Job time: 494 sec
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Minimum DB
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No.
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Listing first 45 summaries
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Perfect score:
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Match Length
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1. /SIDS6/gcgdata/geneseq/geneseqp/AA1980.DAT:*

2. /SIDS6/gcgdata/geneseq/geneseqp/AA1981.DAT:*

3. /SIDS6/gcgdata/geneseq/geneseqp/AA1982.DAT:*

4. /SIDS6/gcgdata/geneseq/geneseqp/AA1983.DAT:*

5. /SIDS6/gcgdata/geneseq/geneseqp/AA1984.DAT:*
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Gapop 10.0 , Gapext 0.5
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(SIDS6/gcgdata/geneseq/geneseqp/AA199.DAT:*

(SIDS6/gcgdata/geneseq/geneseqp/AA2000.DAT:*

(SIDS6/gcgdata/geneseq/geneseqp/AA2001.DAT:*
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /SIDS6/gcgdata/geneseq/geneseqp/AA1985.DAT:*
/SIDS6/gcgdata/geneseq/geneseqp/AA1986.DAT:*
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          Peptide antagonist
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Arabidopsis thalia
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45	44	3	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12
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ALIGNMENTS

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RESULT
Y79111
hypotensive; immunosuppressive; antiparasitic; vasotropic; gastrointestinal inflammation; therapy.
                                                                                                                                                                                                           Zonulin; antagonist; zonula occludens toxin receptor; blood-brain barrier; antiinflammatory; cerebroprotective; neuroprotective; dermatological; antiulcer; antiviral; antibacterial; cytostatic; anti-HIV; vulnerary; antiallergic;
                                                                                                                                                                                                                                                                                   05-JUN-2000 (first entry)
                                                                                                                                                                                                                                                                                                          Y79111;
                                                                                  03-AUG-1998;
                                                                                                      28-JUL-1999;
                                                                                                                           17-FEB-2000
                                                                                                                                                WO200007609-A1
                                                                                                                                                                     Synthetic.
                                                                                                                                                                                                                                                                Peptide antagonist of zonulin.
                                                                                                                                                                                                                                                                                                                              Y79111 standard; Peptide; 8 AA
                                                            (UYMA-) UNIV MARYLAND BALTIMORE
                                                                                  98US-0127815
                                                                                                      99WO-US16683
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New peptide antagonist of zonulin useful as antiinflammatory agent for

WPI; 2000-205565/18

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RESULT
Y79107
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 treating cerebral ischemia, stroke, shigellosis, viral gastroenteritis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Zonulin; antagonist; zonula occludens toxin receptor; blood-brain barrier; antiinflammatory; cerebroprotective; neuroprotective; dermatological; antiulcer; antiviral; antibacterial; cytostatic; anti-HIV; vulnerary; antiallergic; https://www.immunosuppressive; antiparasitic; vasotropic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 1; Page 43; 69pp; English
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                                                                                                                                                                                                                                                                                                                                         WO200007609-A1
                                                                                                                                                                                                                                                                                                                                                                                                                        Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            hypotensive; immunosuppressive; antiparasitic; gastrointestinal inflammation; therapy.
(UYMA-) UNIV MARYLAND BALTIMORE
                                                                                       03-AUG-1998;
                                                                                                                                                                      28-JUL-1999;
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8; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         antagonist of zonulin.
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                                                                                   98US-0127815
                                                                                                                                                                           99WO-US16683
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Pred. No. 3.2e+05;
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meningitis, encephalomyelitis
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       of zonulin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    yet do not
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Y79109
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Best Local S
Matches 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                recombinant DNA techniques. The peptide antagonists are used as an antiinflammatory agents in the treatment of gastrointestinal inflammation, where they bind to the ZOT receptor in the intestine and yet does not physiologically modulate the opening of TV in the intestine. Gastrointestinal inflammation conditions give rise to increased intestinal permeability and the peptide is useful for treating intestinal conditions that cause protein losing enteropathy caused by infection, e.g. Clostridium difficile infection, enterocolitis, shigellosis, viral gastroenteritis, parasite infestation, bacterial overgrowth, whipple's disease, diseases with
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        mucosal erosion or ulcerations, e.g. gastritis, gastric cancer, collagenous colitis, inflammatory bowel disease, diseases marked by lymphatic obstruction, e.g. congenital intestinal lymphanglectasia, sarcoidosis lymphoma, mesenteric tuberculosis, and after surgical correction of congenital heart disease with Fontan's operation,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New peptide antagonist of zonulin useful as antiinflammatory agent treating cerebral ischemia, stroke, cerebral edema, gastritis, shigellosis, viral gastroenteritis, meningitis, encephalomyelitis
                                                                                                                                                                                    zonulin; antagonist; zonula occludens toxin receptor;
blood-brain barrier; antiinflammatory; cerebroprotective;
neuroprotective; dermatological; antiulcer; antiviral;
antibacterial; cytostatic; anti-HIV; vulnerary; antiallergic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     mucosal diseases without ulceration, e.g. Menetrier's disease coeliac disease, eosinophilic gastroenteritis, and immune disee.g. systemic lupus erythematosus or food allergies, primarily
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              binding.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               This present sequence is that of a peptide antagonist of zonulin (Z), one of 25 such peptides (see Y79105-29) of the invention, which bind to a zonula occludens toxin (ZOT) receptor, yet do not physiologically modulate the opening of mammalian tight junctions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 1; Page
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2000-205565/18
                                                                                                                                                hypotensive; immunosuppressive; gastrointestinal inflammation; 1
                                                                                                                                                                                                                                                                                                                       05-JUN-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                                            Y79109
                                                                                                                                                                                                                                                                                                                                                                                                Y79109 standard; Peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                            Synthetic
                                                                                                                                                                                                                                                                                 Peptide antagonist of zonulin.
                                                                       WO200007609-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 GRLLVQPG 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         grvlvqpg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The peptide antagonists are based on a common motif of ZOT man zonulins, which is believed to be critical for receptor q. They can be preserved by a linear to be critical for receptor they can be preserved by a linear to be critical for receptor q.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        92.7%;
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                                                                                                                                                                                                                                                                                                                                                                                                  A
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Pred. No.
                                                                                                                                                  therapy
                                                                                                                                                                      antiparasitic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 21; Le
. 3.2e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 8;
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